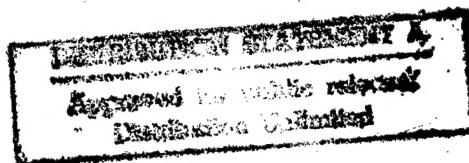


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# USSR Report

HUMAN RESOURCES

No. 64

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6 October 1982

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No. 64

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## LABOR

### KIRGHIZ LABOR OFFICIALS URGE BETTER LABOR UTILIZATION

#### Experimental Placement Service Discussed

Moscow SOTSIALISTICHESKIY TRUD in Russian No 4, Apr 82 pp 24-32

[Article by S. Saltybayev, deputy chairman of the Kirghiz SSR State Committee for Labor, and A. Zuykov, chief of the Public Job Placement and Information Administration: "Ways of Improving Organized Manpower Distribution and Redistribution"]

[Text] The job placement service in Kazakhstan has obtained definite results in the distribution of labor resources among branches of the national economy and territories, the augmentation of employment, the staffing of priority projects and major enterprises and the reduction of losses of time and money connected with the placement and transfer of manpower. Certain problems have also come to light, and they should be solved now.

Above all, in our opinion the time has come to sum up the results of the experiment in placement services and determine how these services should develop in the future. At present, two types of bureaus are operating in almost all of the union republics. The most numerous are the so-called information bureaus, 49 of which are operating in the Kazakh SSR. In terms of effectiveness, however, they are lagging far behind the Alma-Ata, Karaganda, Petropavlovsk, Semipalatinsk and Chimkent experimental city bureaus engaged in centralized job placement services (according to the Kaluga-Ufa method).

What are the limitations of the former and the advantages of the latter? Citizens and enterprises can make use of the services of information bureaus, or they can choose not to. It is a purely voluntary matter. Under these circumstances, they are of little help to either. The situation is completely different in the case of the bureaus which can assist enterprises in their staffing operations and monitor the efficient use of manpower. In Kazakhstan, for example, each experimental bureau served more than 26,000 citizens on the average in 1980, while the information bureau served 1,600. The former fill the orders of national economic branches by 42.9 percent, while the information bureaus fill them by 28.4 percent. The proportion accounted for by the former in the staffing of industrial enterprises is 49 percent, while the latter accounts for 18.5 percent. Citizens who applied at the Chimkent experimental city bureau were placed in jobs within 3.4 days, while those who applied at the Shevchenko information bureau were placed within 17.6 days. A long list of such comparisons could be cited.



This naturally gives rise to questions about just what is interfering with the transition from an experiment whose results were disclosed and analyzed long ago to the daily practice of placing citizens through the network of bureaus.

As we know, a party and government decree on the reinforcement of labor discipline and the reduction of personnel turnover in the national economy recommended the widespread use of the experience of cities in which the hiring of citizens and the staffing of production are conducted by local labor agencies. From the standpoint of economic expediency and convenience, the idea of turning information bureaus into genuine centers of enterprise staffing on an organized basis has aroused no objections in principle. For example, when we surveyed managers of industrial and construction enterprises and transportation organizations (with varying manpower supplies) in Karaganda and Chimkent in 1980, we learned that the overwhelming majority (74.1 percent) regarded organized job placement as the staffing method which corresponds most to the national economic interest given the present situation with regard to labor resources--that is, the need to distribute them among enterprises economically and with a view to the national economic significance of each enterprise.

The main difficulties, in our opinion, are the absence of any mention of enterprise staffing services (although these services have been offered now for 15 years) in the Fundamentals of Labor Legislation of the USSR and Union Republics, the Statute on the Socialist State Production Enterprise and the Statute on the Production Association (or Combine). The legal basis of the placement service still consists primarily of the normative materials of republic labor committees and of local directive agencies, which may or may not be used as a guide by enterprises and organizations. This is confirmed by experience. For example, enterprises which are not fully staffed often do not submit requisitions to the bureaus, preferring to rely on their own abilities, or submit overstated requisitions. They hire workers without informing the middleman and reject the applicants sent to them by bureaus to fill their requisitions. This is why contracts should envisage enterprise liability to the placement service for such practices. It is important to stipulate the particular manpower levels at which the job placement service can send the enterprise new applicants; the number of people the bureaus are obligated to send and the enterprises are obligated to hire, the skill categories of applicants and the staffing schedule; the cases in which applicants will cease to be sent to the enterprise; the amount of time (number of days) the enterprise can fill (or cover) a vacancy which has been registered in the requisition submitted to the bureau.

In the first years of the experiment, the enterprises and the public strictly observed the centralized system of placement that had been instituted by labor agencies, assuming that it would obtain legal recognition. But this has not happened to date. And after all, the principles of manpower distribution that were worked out at this time (the differentiated staffing of enterprises with a view to their manpower supply, national economic significance, etc.) have already proved effective over a period of 10 years.

Many administrators, as noted above, feel the need to legitimize the development of the placement service by enlarging the framework of the experiment. But there is also another point of view. For example, A. Kotlyar and V. Tribun\* believe that

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\* A. E. Kotlyar and V. V. Tribun, "Problemy regulirovaniya pereraspredeleniya rabochey sily" [Problems in the Regulation of Manpower Redistribution], Moscow, Ekonomika, 1978, p 48.

the basic trend in the development of placement services could be mediation, which provides both citizens and the administrators of economic bodies with incentives, while the widespread use of the Kaluga-Ufa method, in their opinion, would be wrong. The same view is expressed, but more categorically, by I. Maslova: "The operational scales of placement procedures...should depend only on the enterprise's interest in utilizing the services of placement agencies...and should not be established according to the administrative legal procedure."\*

It seems to us that any organized form of involving the population in national production can be effective if it has the correct legal organizational framework. The placement service should not be regarded as an exception to this rule. From the standpoint of law, it is extremely important to determine the reasonable and expedient limits of its authority.

What gives the public and economic agencies a so-called incentive to utilize the services of bureaus? The typical situation in today's placement service is one in which the party enlisting its services is active and the other party is passive. If, for example, the bureaus receive many applicants but have no manpower requisitions from enterprises (because they are hiring workers on their own), bureau personnel will have difficulties aiding the job-seekers. Conversely, if the service has information about enterprise personnel requirements but has no applicants (because people are job-hunting on their own), the service is also powerless, but in this case it cannot help the enterprise. The experience of the experimental bureaus indicates something else: The placement service can perform its assigned functions if the relations involving this service, enterprises and citizens are regulated in such a way that the latter learn about personnel requirements through the bureaus and freely choose a place of employment on the basis of bureau information. Enterprises and organizations, regardless of their departmental jurisdiction, must submit information about all job vacancies but will retain the right to make the final decision with regard to the hiring of applicants. Confirmation of the applicant's hiring should be compulsory for enterprises which have signed contracts with bureaus, unless, of course, the applicant is unsuitable due to the state of his health, his profession or other objective factors.

The legal recognition of the placement service as a mediating body for the involvement of the population in production and the improvement of its legal basis, in our opinion, should be accomplished at this time, now that several legislative acts are being drafted and amendments and additions to legislation have been proposed in order to make all of these laws conform to the new Constitution of the USSR.

If the service is given the authority to carry out the centralized placement of citizens and staffing of enterprises, this certainly will not exhaust the possibilities of its development as an informational body. Its earlier endowment with the right to organize all information about manpower requirements made it possible, as we know, to introduce fundamental changes into the content of this information: to eliminate the negative features of exaggeration and a lack of objectivity and to turn it into a factor contributing to the better distribution of labor resources

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\* I. S. Maslova, "Ekonomicheskiye voprosy raspredeleniya rabochey sily pri sotsializme" [Economic Aspects of Manpower Distribution Under Socialism], Moscow, Nauka, 1976, p. 96.

in the national economic interest and the acceleration of the placement process. Its sphere of influence, however, extends only to information about labor requirements within the city. It still has no effect on intercity migration by the able-bodied population, although it certainly could.

A decision of the Kazakh SSR Goskomtrud [State Committee for Labor] of 1 January 1981 set up an intraoblast, intercity information system in 13 oblasts with a network of municipal bureaus. It is supposed to systematically inform the population of the manpower requirements of the most important construction and industrial projects (the list is approved by local directive agencies and includes 96 enterprises in 45 cities) for workers in certain occupations experiencing a labor shortage (fitters, metalworkers, drivers and construction workers). In these cases, the placement process does not involve the signing of any contracts or the payment of fees. This kind of information led approximately 1,500 people to major enterprises and construction projects last year. The results are modest as yet. They also depend considerably on the enterprise's ability to provide applicants from other cities with housing. It is obvious, however, that the placement service should learn to perform this function because the level of unorganized migration is too high, and this means that losses connected with interruptions in the work are too great. In time we hope to institute the exchange of intercity information by republic oblasts. It is obvious that we should consider the possibility of creating a network of interrelated large-scale employment information systems, in which municipal services should be an organizational part of oblast services, the latter should be part of republic services, and these should be part of a unionwide service.

The question of transferring to the budget financing of the placement service and of improving its legal status, raised in I. Maslova's work, is quite pertinent but extremely complex. In the time since the service was established, it has worked out many correct principles regarding the staffing of enterprises and the organization of manpower with a view to its actual supply and demand, the existence of intraorganizational labor reserves, the national economic significance of the enterprise, etc. The implementation of these principles guarantees its effectiveness and distinguishes it from unorganized placement. However, the financial dependence (given all of the existing rates and types of transactions) of the middleman on the enterprise will force this middleman to depart from these principles at times. It is obvious that budget financing would foster strict adherence to the principles by the middleman, and this would naturally have a positive effect on the supply of manpower in production and the efficient use of labor. But these changes in financing would affect the existing system of bonuses and incentives for bureau personnel, which motivate them to heighten the effectiveness of mediation and increase its volume. Budget financing, in our opinion, would diminish or even eliminate the stimulating power of bonuses.

The advantages and disadvantages of existing forms of payment for mediation services are well known. As far as budget financing is concerned, its advantages and disadvantages could be determined, in our opinion, by an experiment conducted in one of the union republics. At present, it would be more expedient to choose the most flexible and effective types of existing transactions between bureaus and enterprises and institute them in all union republics so that a single form of payment can be established for identical mediating services.

I. Maslova's suggestion that either the mobility level of the able-bodied population or the demand for manpower be taken as the criterion of the expediency of opening bureaus does not arouse any special objections. But we would like to cite the operational experience of bureaus in small and medium-sized cities in Kazakhstan, for which these criteria cannot be the only ones. Our republic is one of the few where bureaus have been opened in places other than oblast centers. Their branches are located in cities with a population of 20,000. Their volume of organized placement is small (20-25 percent of the total), but since small and medium-sized cities have no labor departments, the branches compensate for their absence in the structure of local labor agencies. These populated points have some reserve labor resources and the bureau involves them in national production by means of organized recruitment and resettlement. The organization of intercity information will augment the role of branch bureaus in small and medium-sized cities even more.

When the network of placement bureaus is expanded and criteria are chosen to determine the expediency of opening new bureaus, the sphere of their influence should also extend to rural locations, where manpower reserves have not been depleted and much of the labor force has been subject to disorganized migration. The establishment of placement services in rural regions will aid in the more effective resolution of problems connected with the distribution and utilization of rural labor resources.

As for the criteria for the formation of bureau branches and divisions, which were also discussed in I. Maslova's work, they are most needed, we believe, in the municipal rayons of large populated points. We feel that the main criterion should be that of bringing the middleman's services closer to the public and production. The development of these services is being impeded by the fact that they have to be performed by the staffs of existing municipal bureaus, which are known to be small. It is true that some enterprise managers try to help by sending employees from their personnel departments to assist these organizations, and this attests to their interest in the placement service. When the staffs of branches, and even of the bureaus themselves, are being planned, calculations should be based, we believe, on the normative workloads of the employees of these subdivisions in the RSFSR, where the bureau staff structure corresponds more to the duties and functions specified in the standard statute.

We feel that I. Maslova is correct in raising the question of how indicators should be calculated for evaluating the operational results of the placement service. At present, not a single document distinguishes between the chief indicators and those that are optional. For example, many of them are statistical (monthly, quarterly and annual), reflecting the number of applicants, interviews and placements (broken down by sex, age, place of residence and branch of employment) and the number of job vacancies. There is an even larger group of departmental indicators. Since 1972 the municipal bureaus in the republic have been given placement assignments approved by the Kazakh SSR Goskomtrud. There is the so-called incentive group of indicators, which are taken into account when bonuses are paid to bureau personnel (the fulfillment and overfulfillment of placement assignments, estimated income, etc.). Finally, we also consider certain other indicators--and make extensive use of them in analyses--such as the contract coverage of enterprises, bureau maintenance costs (including information bureaus), degree of request fulfillment (including those for the major enterprises and professions), the bureau share in the

staffing of industry and construction and in the fulfillment of the plan for organized recruitment and agricultural resettlement, the percentage of citizens who change professions when they change jobs, the stability of the labor force, reasons for the refusal of job offers and for the return to previous jobs, the professions in which placement is difficult, and the level of information (the number of information centers, the frequency with which announcements are made in the press and on radio and television and the titles and circulation figures of informational posters and notices).

Of course, there might be questions about the expediency of some of these indicators, but experience has shown that these indicators or similar ones are necessary in the management of this service and, in our opinion, represent an excellent empirical base for the compilation of statistical reports and, in particular, departmental reports, with the aim of standardizing the latter.

It is also important to determine more objective evaluation indicators because there are no more municipal bureaus which perform their originally specified functions (the organization of public job placement and information) in "pure form." The standard statute has expanded their duties considerably. They take part in fulfilling national economic plan assignments approved by labor agencies for the organized recruitment of manpower and agricultural resettlement, work in conjunction with local soviets of people's deputies for the efficient use of labor resources and the stabilization of the labor force and cooperate with social security agencies and commissions of local soviets to raise the employment level of pensioners and to find jobs for secondary school graduates. Their actual responsibilities constitute an even longer list. Bureau personnel monitor the use of manpower and the training of workers for priority projects, collect and process various types of material on labor statistics and labor resources, work with other agencies on analyses and on the compilation of analytical reports, etc. It is with good reason that the bureaus are now being called "subdepartments" of labor departments. Departments in locations where the job placement service has been established will probably continue--due to the small size of their own staffs--to enlist the services of bureau personnel to perform some of the functions of local agencies. This is why we believe that it is no longer enough to evaluate bureau performance with the aid of indicators of only the volume of services rendered to the population and to enterprises. They must be brought in line with the functions the service actually performs. Even now, it would be expedient to consider the contribution of these subdivisions to the fulfillment of national economic plans for the organized recruitment of manpower and agricultural resettlement and to the discovery of intraorganizational labor reserves.

We must not forget, however, that the placement service is supposed to perform special functions, which will become more important with each year and which cannot be performed by anyone else. The involvement of the placement service in the performance of new functions, which are defined in the standard statute or, in some cases, transcend its framework, presupposes, in our opinion, the need to determine the optimal performance volume. The matter has not been cleared up as yet. For example, the standard statute on the bureaus says that they will participate in the organized recruitment of manpower and the resettlement of the population, but although these assignments are fulfilled by 100 percent in some union republics, the respective figures in Kazakhstan are 42.2 and 15.1 percent, and in some regions the bureaus do not do any of this.



We feel that the time has come to make additions to the statistical reports on forms and sources of recruitment. Although the bureaus are sending large quantities of manpower to industrial enterprises and construction organizations, their statistical reports do not reflect this form of staffing separately (as, for example, organized recruitments, new workers from the vocational and technical educational system and others are listed separately). People who are placed through the bureaus are recorded as persons hired directly by enterprises, which distorts the relationship between organized and unorganized forms of staffing by diminishing the proportion accounted for by the former and augmenting that of the latter. The absence of enterprise records of people placed by bureaus gives them no chance to assess the role of this source of manpower correctly and is, in our opinion, one of the factors inhibiting the development of this service. This is why we feel that a line indicating "Persons hired through placement service" should be added to the "Hirings, Discharges and Manpower Balance" section of statistical forms 2-T and 3-T at enterprises and on construction sites.

I. Maslova's suggested interpretation of indicators showing the relationship between "applicants" and "placements" and between "applicants" and "interviews" is interesting but debatable. We who work in this field see certain reserves in their lack of correspondence--reserves which can help the placement service improve the final indicator: the number of placements. We are therefore instructing bureaus to minimize the difference between these indicators by determining the total demand for manpower in production.

According to I. Maslova, the relationship between "applicants" and "placements" indicates two things: the number of jobs found with the aid of the placement service and the number of applicants remaining in their previous jobs. The author draws two conclusions from this: A larger gap between "applicants" and "placements" means that bureaus are effectively encouraging personnel to remain in their old jobs, and a smaller gap means that the interests of citizens are being given more consideration. This opinion is not corroborated by experience. It is true that bureau employees sometimes prevent citizens from leaving enterprises and return applicants to their previous jobs. Nevertheless, a discrepancy between "applicants" and "placements" does not mean that personnel are remaining in their old jobs. In the first place, it cannot be interpreted in this way for the simple reason that the difference in our network, for example, is 21.9 percent, while the indicator of persons returning to their previous jobs is only 0.5 percent, or several times lower. In the second place, the term "applicants" includes absolutely all categories of persons making use of bureau services and indicates a quantity which has the most direct effect on the gap between "applicants" and "placements" but is unrelated to the number of persons returning to their previous jobs as a result of bureau activity (applicants who are already employed but come to bureaus for counseling, those who do not want any of the jobs the bureau is offering, and those who are not hired for various reasons after the bureau sends them out on interviews).

The real reasons for large and small discrepancies between these indicators can be found primarily in enterprise requisitions for workers and employees. The more fully the service determines the demand for manpower, the greater variety of jobs it can offer and the smaller the discrepancy between "applicants" and "placements" will be. Conversely, if the bureau receives few requisitions, the discrepancy will unavoidably grow.

According to I. Maslova, the discrepancy between "applicants" and "interviews" indicates the correspondence of the demand for labor to the supply of manpower in some cases and the level of demand for bureau services among the public and economic agencies in other cases. We feel that the relationship between supply and demand and the level of demand for mediating services are indicated by the relationship between "applicants" and "placements" and not the other two indicators. The interest of enterprises and organizations in bureau services should be judged by actual placements and not by the quantity of manpower they are sent. After all, many of those who are sent out by the placement service do not wish to work at these enterprises for one reason or another, and others are rejected by the enterprise. The indicator "placements," and not "interviews," is used when the fulfillment of enterprise manpower requisitions is calculated, and it is on this basis that economic agencies evaluate the performance of our service. Incidentally, I. Maslova's use of the term "gap" is unconventional because there are placement coefficients (for applicants and for interviews) and interview coefficients for this purpose.

We also feel that there are no grounds for I. Maslova's conclusion that the placement service should be under the jurisdiction of local soviets of people's deputies. In spite of all the diversity in the management of the placement service in the union republics, the most prevalent structure has two levels, meaning that the bureau is under the jurisdiction of the republic goskomtrud and its labor department of the oblast soviet of people's deputies, and therefore also the local soviet of people's deputies. Oblispolkoms and gorispolkoms are directly involved in the management, development and improvement of the placement service. They find facilities for bureaus and monitor the conclusion of agreements with enterprises, the placement of citizens and the staffing of enterprises, especially priority projects. Bureau activities are regularly discussed at ispolkom meetings and bureau personnel participate in the preparation of materials for ispolkoms and attend sessions.

If, as I. Maslova suggests, the placement service is made a structural subdivision of the local soviet, still under the jurisdiction of the republic goskomtrud but no longer accountable to the local labor department, there will be two independent local labor agencies in the oblast center, which would be illogical and probably even inexpedient.

The further augmentation of the effectiveness of the placement service will be directly connected with the organization of socialist competition among municipal bureau collectives. In the Kazakh SSR they take part in the republic socialist competition, struggling to fulfill their assignments, play a more important role in supplying the main branches of the national economy with manpower, fill the orders of enterprises and organizations more efficiently, place secondary school graduates more quickly and serve the public better. The collectives with the best annual results are awarded the challenge red pennant with a citation and the certificate of merit of the republic goskomtrud and the republic committee of the trade union of state establishment personnel. This has a positive effect on the activities of all republic bureaus. This kind of competition should probably be organized on the national scale. The terms of socialist competition between union republic bureaus should be worked out for this purpose, with the victor being awarded the Challenge Red Banner of the USSR Goskomtrud and the Central Committee of the State Establishment Personnel Trade Union and a monetary prize. The enhancement of the prestige

of labor agencies and the stabilization of their staff would be promoted if an "outstanding labor agency employee" medal could be awarded to the employees who excel or have seniority in the agencies.

These are our suggestions for the future improvement of the placement service and the augmentation of its role in the provision of the national economy with manpower.

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#### Progress Report on Kirghiz Placement Bureaus

Moscow SOTSIALISTICHESKIY TRUD in Russian No 4, Apr 82 pp 32-33

[Article by A. Usubaliyev, chief of the Department for Labor Resources and Public Job Placement and Information of the Kirghiz SSR State Committee for Labor: "For the More Efficient Use of Labor Resources"]

[Text] The more efficient use of labor resources is a matter of great concern in the Kirghiz SSR. Suffice it to say that the people placed in jobs by labor agencies now account for 38 percent of all manpower transfers, and this is more than twice as high as the union average. We hope to bring the figure up to 50 percent in the future. There are now 29 public job placement bureaus in the cities and rayons of the Kirghiz SSR. In 1981 they placed 58,600 people in jobs, or 20.7 percent more than in 1976.

For several years public placement in Frunze and Osha has followed the pattern set by Ufa and Kaluga. It has proved completely effective. The managers of some enterprises and organizations, however, are violating the terms of the contracts they sign with placement bureaus. Their independent hiring makes it difficult to monitor and keep records of manpower transfers in branches of the national economy and contributes to personnel turnover. The result is often a surplus of workers and employees at some enterprises. Labor agencies are taking effective measures to eliminate these shortcomings. State inspections have revealed surplus manpower at enterprises and organizations. The republic goskomtrud [state committee for labor] sends them a notice and, if the situation is not corrected, the placement bureau stops sending them applicants. During 1981, 33 notices were sent out. As a result, the overstaffing of republic industrial enterprises is 8.8 percent lower than it was in the first half of 1980. This applies in particular to enterprises of the Ministries of Light Industry and Local Industry.

Placement bureaus in the large industrial cities of Frunze, Osha and Tokmak first send manpower to enterprises and organizations of considerable national economic significance. They include the Agricultural Machine Building Plant imeni Frunze, the Kirgizavtomash Automotive Machine Building Production Association, the Computer Plant imeni 50-Letiye SSSR, the Kirghiz Worsted Wool Combine, the Osha Cotton Fabric Production Association imeni 50-Letiye Oktyabrya, the Tokmak Worsted Wool Factory and several construction organizations. Nine out of ten new workers here were sent by labor agencies.

The decree of the USSR Goskomtrud "On the Work of the Belorussian State Committee To Institute State Control over the Staffing of New Enterprises" helped to improve



bureau work. The republic goskomtrud issued an order to all oblast and local labor agencies in connection with this.

The placement of young graduates of general educational schools is conducted by labor agencies throughout the republic, and they also participate directly in the vocational guidance of upperclassmen in close contact with public education departments and Komsomol organizations. This work, just as the placement of young people, is a vital necessity. The rayons of the Chuyskaya Valley, where industrial production has been developed, are now experiencing a shortage of manpower in agriculture as well. It is certainly alarming that the average age of the workers here has risen slightly. For example, it is already close to 50 among the beet farmers in some areas, and this is being accompanied by the migration of youth to the cities. Because of this, the problem of keeping young people in agricultural production is now of paramount importance. Unfortunately, the necessary conditions for this have not been established on all kolkhozes and sovkhozes and vocational guidance therefore does not always have the necessary impact.

The situation is different in the outlying regions of the republic, where ethnic features keep the native population's level of mobility low. Most of the young people remain in their native communities. Labor agencies must therefore see to their employment in national production. In their work with young people, labor agencies are constantly supported by the ispolkoms of local soviets of people's deputies and the personnel departments of enterprises and organizations.

Vocational guidance and the placement of young people have been organized well in Frunze. The bureau here has sectors in charge of vocational guidance, the adaptation of young people in the production sphere and the placement of young people. Together, they conduct purposeful work among the upperclassmen of general educational schools. Tenth-graders in the city visit the vocational guidance office of the placement bureau. Here they learn about working and personal conditions at enterprises and about various occupations and hear lectures by outstanding production workers and labor veterans. As a result, around 4,000 graduates of these schools go to work at enterprises each year.

More than half of the young people who are placed come from other cities and rayons in the republic. As a rule, this is the first time they have been far from home. It is not easy for them to get used to urban ways, to learn what kind of enterprises the city has, where they are located and what kind of working and personal conditions they offer, and to deal with a number of other problems. In the bureau they receive complete information. It sends them out on interviews and then monitors their adaptation to production, periodically inspecting the conditions of their labor and personal comforts and studying and analyzing the causes of turnover. The results of the inspections are submitted to the Frunze City Soviet of People's Deputies.

Labor resources cannot be managed successfully without the constant analysis of demographic processes, the state of the economy of cities or rayons and the prospects for their development. This is why the committee's department for labor resources drew up a form to record the demographic and economic characteristics of cities and rayons, providing a complete picture of the state of the economy and the utilization of labor resources. It also contains some information that is

essential in the study of social processes. These forms are filled out by local labor agencies for each city and rayon in the republic.

The further enhancement of the operational efficiency of these organizations will aid in the completion of the complex social and economic tasks set for us in the 11th Five-Year Plan by the 26th CPSU Congress.

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## LABOR

### EXPERTS DISCUSS WAYS TO RELIEVE LABOR MONOTONY

Moscow SOTSIALISTICHESKIY TRUD in Russian No 6, Jun 82 pp 33-38

[Article by V. Roik, sector supervisor in the Labor Conditions Department of the USSR State Committee for Labor and Social Problems, I. Shapiro, doctor of economic sciences, and V. Ryss, candidate of economic sciences: "The Reduction of Monotonous Labor: New Possibilities--New Objectives"]

[Text] The problem of keeping the content of labor consistent with the cultural and educational level of the working class is acquiring increased significance under the conditions of technological progress and the further development of our society along the path of communist construction. Most of the young people entering the labor force have a secondary or partial secondary education and they naturally want to have an opportunity to use the knowledge and labor skills they have acquired.

Of course, the problem of optimizing the content of labor cannot be solved in the same way for all people: A labor process in which creative elements prevail appeals to some people, while others prefer smooth, rhythmical and strictly regulated work. The majority, however, want highly meaningful work and the possibility of constant creative growth. This means that it is extremely important to systematically eliminate monotonous labor, which has a negative effect on the social development of labor collectives. This is being done through the technical and organizational improvement of production.

Automatic and semiautomatic equipment, conveyor belts and mechanized flowlines are now being used widely at enterprises. According to the data of the USSR TsSU [Central Statistical Administration], on 1 July 1981 there were more than 173,000 mechanized flowlines and automatic lines in industry and more than 70,000 pieces of equipment with programmed control were being operated. The establishment of completely mechanized and automated shops, sections and production units, combined with scientifically organized labor, is an important condition for the further augmentation of labor productivity.

The failure to take a comprehensive approach to the use of technological achievements, an approach which does not take the human factor fully into account and does not emphasize scientifically substantiated decisions in the sphere of labor organization, can have a negative impact. When the technological process is broken down into the simplest identical operations, often performed in a compulsory

rhythm and prescribed posture, workers have no opportunity to increase their occupational skills. Many types of labor in industry are still not meaningful enough; they are distinguished by the uniformity of operations, a monotonous content and a high level of physical and nervous strain. This applies, in particular, to enterprises in the automotive, timepiece and food industries, light industry, agricultural machine building, instrument building, the construction materials industry, home appliance production and several other branches.

At many enterprises of the automotive and garment industries, the percentage of manpower working on conveyor belts and flowlines exceeds 20 percent and 50 percent respectively. A sample survey conducted by the USSR TsSU indicated that highly monotonous labor was being performed by 4.8 percent of the workers at enterprises in the machine building branches, 7.5 percent in the confectionery industry and 13.3 percent in the meat industry. This lower productivity and the quality of work, increases boredom and raises the rate of illness and personnel turnover. For example, at enterprises of the garment industry the rate of illness among workers performing monotonous labor is almost 3 times as high as the rate for persons performing jobs that are not monotonous, and the rate of turnover is particularly high among sewing machine operators. The rate of turnover is 25 percent on the assembly lines and in the pressing units of some motor vehicle plants. When surveys were conducted at these enterprises, around one-third of the people who resigned said that they were dissatisfied with the content and conditions of their labor. The turnover rate is particularly high on conveyor belts, where monotony is combined with high-speed labor. It is not surprising that serious difficulties are encountered in the staffing of enterprises of the automotive industry, agricultural machine building and some other branches where mass flowline production is predominant. The exacerbation of the demographic situation and the rising educational level of young people taking jobs at industrial enterprises will obviously increase these difficulties.

Some experience has been accumulated at enterprises of various branches in the limitation of the negative effect of monotonous labor on workers. Experience has proved that the most effective ways of eliminating uninteresting and monotonous labor are the automation of production processes, the use of industrial robots and manipulators on conveyor belts and the incorporation of automatic control systems and all-purpose automatic means of transport. The production of automatic lines and industrial robots in our country is growing more rapidly than the total output of technological equipment. Many labor-intensive processes are still not being automated quickly enough, however, particularly assembly, welding, casting and other operations.

The decisive stage, during which the problems of making work more meaningful and less monotonous can be solved most successfully, is the stage when progressive technological and labor processes based on the latest scientific and technical achievements are planned and developed. The designers of new equipment, however, do not always give enough thought to the content of the labor of the people who will be operating the equipment. One of the main defects of many of the automatic lines and machine tools designed in recent years is that they take on the function of controlling the technological process but leave the most simple elements of the labor process to the worker--the loading and unloading of equipment. This impoverishes the content of labor instead of enriching it.

Manual labor with little content is quite frequently used in the initial and final operations, when items are placed on the automatic line and removed from it. For example, the operators of one automatic line at the Serp i Molot Plant in Kharkov spend almost 53 percent of their work day loading and unloading the line. Operators working on many of the plant's automatic lines perform operations consisting of from two to four elements lasting from 4 to 21 seconds.

During the designing process, attention is often focused on the automation of the technological part of the project but the problem of interoperational mechanization is not given enough attention. For example, the use of distribution conveyor belts with two- or three-tier attached racks in the production of small television sets forces workers to stand in an uncomfortable position for their entire shift while they handle items weighing around 5 kilograms. There are, however, designs of similar conveyor belts without this defect. It is extremely important for the design process to be conducted with a view to scientific organization of labor, which envisages the creation of favorable hygienic and ergonomic conditions. Above all, it is necessary to find designs which not only improve the conditions of labor but also give it more content and provide opportunities for the combination of operations and professions and for group work. Robots aid in the elimination of monotonous labor. They relieve the human being of the need to perform heavy unskilled operations and have proved quite effective, for example, in drop forging, pressing and machining operations. Positive experience in this area has been accumulated at enterprises in Leningrad, where around 600 automatic manipulators have been installed in recent years. This has freed more than 700 people from monotonous work and has produced a savings of almost 600,000 rubles. There are more than 200 robots operating in the Petrodvortsovy Chasovoy Zavod Association alone. They have replaced 300 people in complex and monotonous timepiece assembly operations and have saved tens of thousands of rubles each year.

The better division of labor and the improvement of cooperative labor represent one of the chief ways of relieving monotony. Optional-speed lines have been substituted for conveyor lines with a compulsory rhythm at many enterprises of the instrument building industry and other branches of machine building. The workers on these lines make fuller use of their chances to achieve a high output, can shorten their work day and can also relieve monotony by alternating between different operations. As a result, labor productivity rises by 10-30 percent and the negative effect of compulsory rhythm on the human being is reduced considerably. Optional-speed lines are now being used in watch plants, instrument-building plants and food and light industry enterprises.

The timepiece assembly conveyor belts with a set speed in the Yantar' Production Association in Orlov have been scrapped in favor of unit assembly, which has raised labor productivity by 4-6 percent. Conveyor lines with the automatic distribution of the articles of labor are being used quite effectively at the Vibrator Plant in Leningrad. They have considerably reduced labor expenditures on auxiliary operations and allow manpower to work at their own speed with a high worktime use coefficient. Labor productivity has risen 20-40 percent.

The television installation and assembly conveyor belts in the Elektrosignal Production Association in Voronezh are equipped with mobile branch lines so that brigades can divert part of the work to a specially equipped section without

stopping the line. Labor productivity here has been augmented by more than 10 percent and the conditions of labor have improved considerably. Perhaps the most significant successes in this area have been achieved in the watch industry, as exemplified by the experience of the Second Moscow Watch Plant. The transfer from a set speed to an optional rhythm here raised labor productivity 11.5 percent without any significant additional expenditures. At the same time, highly productive equipment was installed in technological assembly processes--precision electronic instruments, attachments, automatic and semiautomatic units and mechanized platforms. Domestic and foreign experience has indicated that it is sometimes expedient to replace long assembly lines with shorter ones and to divide long lines into basic (final assembly) and auxiliary (preliminary assembly) ones.

At enterprises of the garment industry the replacement of set-speed conveyor belts in sewing shops with optional-speed group flowlines has proved effective. It has reduced the number of workers engaged in monotonous labor and lower the level of monotony. For example, more than 60 percent of the operations on set-speed lines were highly monotonous, but the figure dropped to 36 percent when the group flowlines were installed. The first flowlines of this type were installed in this branch a fairly long time ago, and they now represent 90 percent of all the lines. Their installation has augmented labor productivity by 14-18 percent on the average and has promoted economic efficiency. Group flowlines which feed work in batches generally reveal the individual abilities of workers more fully, lower the level of monotony, reduce losses of work time in the exchange of models and promotes the more efficient use of special equipment.

It must be said that the transfer to optional-speed labor in many production units of the machine-building, footwear and other industries presupposes the installation of new conveyor systems. Their output is still insufficient, however, many high-speed and set-rhythm conveyors are still being used in the automotive, radio and food industries, instrument building, agricultural machine building and the construction materials industry. Even at an enterprise as advanced as the State Bearing Plant No 1, where much is being done to improve working conditions, the number of conveyor belts and flowlines has doubled in recent years but all of them operate at a set speed.

This means that it is extremely necessary to ensure the production of optional-speed conveyor belts with the automatic distribution of the articles of labor, as well as specialized conveyors equipped with devices for the mechanization and automation of production processes for assembly and other operations in mass flowline production.

The rotation of workers among jobs, selected in such a way as to exercise different groups of muscles and nerve centers, produces a significant impact. The main purpose of this rotation is to compensate for the passive state of certain organs and systems of the human organism during primarily monotonous labor with activity of a different type. There is a positive impact connected with the worker's sense of variety and novelty. The most favorable conditions for this kind of rotation are created by the brigade organization of labor. In brigades it is the workers themselves who make decisions on the organization of labor, which allows for the expansion of the service zone and the combination of professions and gives brigades a certain degree of independence in setting work rhythm and planning production loads.

Brigades of this kind are operating, for example, in the Avtodizel' Association in Yaroslavl. They are working on the conveyor belt and on separate benches, assembling parts and engines.

At the Vibrator Plant in Leningrad almost all of the assemblers have mastered the majority of operations on conveyor belts in the last 2 years, which has made them much more satisfied with their work and has afforded them the prospect of increasing their skills. In the nut section of the hardware shop of the Novaya Kakhovka Electrical Machine Building Plant, where most of the machine tools are semiautomatic units which do not require any great skill to operate, the transfer to the brigade organization of labor gave brigade members a chance to take on the additional function of adjusting machine tools. They received the proper training, which expanded the service zone and taught them to adjust the equipment and even perform minor repairs. The workers now have an opportunity to increase their skills and, consequently, rise to a higher skill category when they master the functions of an adjuster and fitter.

One effective way of reducing the effect of monotonous labor on the human organism is the introduction of efficient labor and rest schedules. They envisage measures to increase working capacity: physical exercises, functional music, etc. Workers at some enterprises are given hot tea and tonics during regular breaks. The negative effects of monotony are minimized by physical activity during breaks: warm-up exercises, physical culture breaks and physical culture minutes.

Much has been done in this direction at enterprises of the garment industry by the labor safety laboratory of the Rostov branch of this industry's central scientific research institute. Measures have been worked out to limit the negative effects of monotony on the physiological functions and working capacity of the individual. They include efficient labor and rest schedules, functional music, productive exercises, the establishment of healthier working conditions, etc. In the last 10 years these measures have been instituted at 150 garment factories in the country. The result has been a rise in labor productivity, the conditional freeing of more than 2,000 workers, a drop of 4-8 percent in the rate of illness and a drop of 1.5-5 percent in the rate of personnel turnover. The economic savings exceeds 4 million rubles. Some examples are the Novoshakhtinsk Garment Production Association, the Smena Association in Moscow, the Mayak Association in Lvov, the Orel Association in Domodedovo, the Garment Production Association in Tiraspol and the Komsomolka Association in Minsk.

Highly efficient labor in monotonous jobs requires the employment of people who are most adapted to this kind of labor. Considering the fact that the monotonous occupations are fairly widespread, their peculiarities should be explained during the vocational guidance process. Students must be taught the ways and methods of reducing the effect of this factor before they take jobs in these fields. Besides this, the prestige and significance of these occupations must be enhanced and young workers must be given opportunities for growth.

Workers also have negative feelings about occupations connected with monotonous labor because they often provide no opportunities to increase skills. It is difficult to staff these fields and new workers are usually young. The new workers in our industry are now young people with a secondary education. They are often



dissatisfied with the present practice of dividing labor into simple operations and the system of narrow specialization. They want interesting, creative and meaningful work requiring highly skilled performance. With a view to this legitimate and natural desire, a system for the improvement of skills, the regular rotation of workers from one operation to another and the combination of professions must be worked out in industry.

There should also be financial incentives for professional growth. Studies have shown that the majority of persons who resigned from garment industry enterprises were under the age of 22, and most of these were women who had worked less than 2 years. Workers with a secondary or partial secondary education are the most likely to resign, and only one-fifth of those who resigned had a specialized education. These data indicate that there is no system of vocational guidance for new workers, professional counseling and professional advancement in sewing factories.

In connection with this, the experience of the Volga Motor Vehicle Plant imeni 50-Letiye SSSR should be publicized. It has a system of professional advancement in which people who have worked on conveyor belts and flowlines for a certain amount of time (usually at least 3 years) are moved to other areas with favorable conditions for the improvement of skills and the performance of more interesting and more appealing work. For example, machine tool operators working on flowlines become machine tool specialists or adjusters after their training period, and fitters and electricians on conveyor belts are transferred to equipment and instrument repair and maintenance--that is, to an area requiring more knowledge and offering broad scope for creativity. This positive experience, however, has not been publicized enough. Regular measures have not been taken at many enterprises to make work more meaningful and appealing.

The alleviation of monotony is therefore an important national economic problem whose economic and social significance will increase in the future. A system of measures providing not only for the maximum analysis of all of the causes of monotony, but also the planning of its prevention, is most effectively reflected in comprehensive special planning. This is an intersectorial matter, and the main problem now is that it is being worked on by various means although it requires coordinated programs of action by many ministries and departments. Above all, we believe that statistical records should be kept of workers engaged in monotonous labor, broken down by occupations. This will pinpoint the areas requiring the most immediate action and will serve as a basis for the development of devices for the comprehensive mechanization and automation of production processes: optional-speed conveyor systems for various branches of industry and equipment to automate jobs connected with monotonous labor. The program should envisage the production of monitoring and measuring equipment for ergonomic and psychophysiological studies, the elaboration of the necessary procedural and normative materials on the psychophysiology of labor and the organization of professional recruitment for highly monotonous jobs and the development of methods to monitor the psychophysiological state and illness rate of the workers in these jobs.

This comprehensive approach will reduce monotonous labor, lower the rate of turnover and heighten job satisfaction in accordance with plans.

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## LABOR

### AGRICULTURAL MANPOWER TRAINING IN LITHUANIAN, KIRGHIZ SSR'S

#### Farm Manpower Problems Surveyed

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[Article by B. Gaygalas, chairman of the LiSSR State Committee for Labor, candidate of economic sciences: "Formation and Use of Labor Resources in the Agriculture of Lithuanian SSR"]

[Text] As the party's farm policy is carried out in our republic, agriculture's physical plant and equipment grows larger every year. Between 1960 and 1980 its power capacities increased 5.8-fold, and the power-labor ratio on kolkhozes and sovkhozes 9.4-fold. Whereas in 1960 there was a power capacity in agriculture of 3.8 HP per worker, by 1980 the figure was already 35.7. On the eve of World War II there were only about 500 tractors in the fields of the republic, but today there are already more than 46,000 tractors, more than 10,000 grain-harvesting combines, and 29,000 trucks. In just 20 years the number of tractors per kolkhoz has increased nearly eightfold, the number of grain-harvesting combines threefold, and the number of trucks more than fivefold; on a per-sovkhoz basis the increases are 2-, 4.5- and 2.1-fold, respectively. At the present time the principal field operations on kolkhozes and sovkhozes (plowing, planting grains and sugar beets, harvesting grain and silage crops) have been completely mechanized; and mechanization of operations in the planting of potatoes, in cleaning and loading grain, and so on, is nearing completion.

Reclamation has taken on broad proportions. In the postwar years 2.8 million hectares have been drained, or more than 70 percent of all the wetland, and this has been manifested in a solid addition to the yield of all farm crops.

The rural worker himself has undergone change. His skills have increased considerably. The level of education of agricultural workers is approaching that of those working in industry. Whereas in 1970 there were 293 persons with higher and secondary education (complete and partial) per 1,000 rural inhabitants employed in social production, in 1979 there were already 525.

The cultural and consumer services available to rural workers have also improved unrecognizably. Now about 64 percent of them live in well-arranged settlements which have stores, schools and culture centers. In the 10th Five-Year Plan alone 43,000 housing units were built for them.

The supply of powerful equipment to agriculture and the substantial increase in the skills of personnel working in agriculture have helped to transform it into a major industrial sector. Today it is furnishing approximately one-third of Lithuania's national income, while at the same time the share of the population employed in it has dropped from 74 percent in 1939 to 22 percent in 1980. The volume of production of agricultural products is growing constantly in the republic. Last November Comrade L. I. Brezhnev, general secretary of the CPSU Central Committee and chairman of the Presidium of the USSR Supreme Soviet, congratulated Lithuania's farmworkers for successfully fulfilling socialist obligations in selling agricultural products to the state.

The greater social and nonmaterial needs of farmworkers make it a necessity that the technical level of production continue to rise and their working and living conditions continue to improve in the future. Increasing the volume of output solely by raising labor productivity presents the problem of optimum utilization of labor resources.

Even quite recently there was a large reserve of manpower in the republic's agriculture. In 1960 65 percent of the able-bodied population not employed in social production were rural inhabitants. As a result of the high rates of development of industry and urbanization, the reserve of labor resources in rural areas has begun to dry up quickly. In just the last decade the number of rural inhabitants dropped 16.2 percent. This is a natural process, determined by technical progress in the present stage of development of socialist society. But its rates have been higher in our republic than in the country as a whole. With respect to the level of urbanization at the outset of 1981 the republic moved from 11th place to 5th-6th place and attained the level of Ukrainian SSR.

The sharp reduction in the size of the farm population has brought about several adverse changes in its age-specific composition. There has been a substantial reduction in the number of persons of working age, since 70-80 percent of those leaving rural areas are precisely in that age group and are mostly young people. Of course, enrollment of rural young people in urban vocational and technical schools has no small influence here. For instance, over the last decade nearly ninefold more rural young men and women were enrolled in urban vocational-and-technical and technical schools than from cities.

As the size of the able-bodied population in rural localities has diminished, the load per worker has begun to increase. For instance, the area of farmland per kolkhoz member increased from 7.6 hectares in 1970 to 10.2 hectares in 1980. There are farms with 18 hectares of farmland or more per able-bodied person. There is also an increase in the number of workdays which kolkhoz members work during a year; on certain farms this figure goes to 300 days or more.

Thus the possibilities of reducing the size of the labor force in Lithuanian agriculture are becoming very limited. A number of steps have been taken in the republic in this regard, and their performance will make it possible even during the 11th Five-Year Plan to reduce the rate at which persons of working

age are leaving agriculture. The principal measures that have been taken are to establish a strict limit on the size of the labor force in the industrial sector, and beginning this year in other sectors of the national economy as well, and restriction on construction of new enterprises. This has brought results. Whereas in the last 5-year plan the labor force in agriculture was decreasing at a rate of 7,000-8,000 per year, last year the drop was only 3,000.

According to the calculations of demographers, by the year 2000 the rate of decrease of the number of people working in agriculture, including private farming, will be barely one-tenth of what it was over the last 20 years. We would like to emphasize the importance of forecasting the parameters of demographic processes, of migration, and the prospects of agriculture's need for personnel in the context of a strained demographic situation. It would be advisable to have such forecasts not only for the republic as a whole, but also for its rayons and farms.

Much attention is being paid in Lithuania at the present time to introduction of measures to improve the supply of labor resources to agriculture and to keep young people down on the farm. To be specific, a number of specific steps have been taken to expand the training of personnel for agriculture in vocational-and-technical schools, technical schools, and higher agricultural educational institutions, to increase the scale on which young women are sent to SPTU [rural vocational-and-technical schools], to improve the work training and upbringing of students in general secondary schools, and to hold young people in rural areas.

How do matters now stand in the republic's agriculture as to its supply of manpower?

The central figure here at the present time is the machine operator. He performs the principal operations in field cropping and animal husbandry. Since 1960 the number of machine operators has increased 2.8-fold and now amounts to about 22 percent of the total number of farmworkers. Their skills have also risen considerably. At present 72 percent of tractor-machine operators are in classes I and II, and in Pasval'skiy, Alituskiy, Shvenchenskiy and certain other rayons--80 percent. But there is still a shortage of machine operators on many farms. Last year there were only 93 permanently employed machine-tractor operators per 100 tractors on kolkhozes and sovkhoses, and in certain rayons still fewer. The situation is also problematical with the supply to the farms of workers for field cropping and animal husbandry. The number of young people among them is intolerably low. In animal husbandry, for example, people under age 30 represent only 10 percent.

At the present time more than 60 percent of the skilled workers needed by agriculture are being trained in the system of vocational-and-technical education, but this is still not meeting the sector's needs. In many rayons there is still no vocational-and-technical school. That is why plans call for considerable expansion of the network of secondary SPTU so that they exist in a majority of the rural rayons by 1990. There has also been an improvement in the training of personnel for animal husbandry; training in these occupations,

of which there is at present a shortage, has now been introduced in many SPTU.

Another problem is coming to a head in the future: There is a steady drop in enrollment in general rural schools, while at the same time there are plans to increase the size of student bodies in rural vocational-and-technical schools. To solve that problem, then, in our opinion, "profiled" teaching of agricultural occupations should be introduced even in urban general public schools located in rayons, especially since the parents of about 25-40 percent of the children attending them work in the system of agriculture.

Raising the efficiency of agricultural production, accomplishing its specialization and concentration and introducing management by branches are unthinkable without specialists at the middle and higher levels. Over the last 20 years agricultural VUZ's and tekhnikums in the republic have trained 87,000 graduate specialists, 15,700 of them with higher education. But agriculture still has a shortage of them. Almost half of farm managers, their deputies and chief specialists do not have higher education. Many chief engineers, maintenance engineers, and bookkeepers also lack certificates from higher education. At the present time about 20 percent of all the job slots for specialists, about 7 percent of farm managers, their deputies and chief specialists are held by people whose skills are based on practical experience. Agriculture has a shortage of zoological engineers, veterinarians, electrical engineers and mechanical engineers. That is why in recent years there has been increased enrollment in these specialties in daytime departments of higher educational institutions, and their educational plant has been expanded.

In our view more serious attention should be paid to shaping the student bodies of higher agricultural educational institutions. Nor is the trouble that they now have a substantial share of city dwellers, but that upon graduation from the VUZ they are reluctant to go to work in agricultural production. As a result quite a few graduate agricultural specialists are employed in other sectors. It would seem wise to enroll in these higher educational institutions above all those young men and women who have graduated from rural schools. Kolkhozes and sovkhoses should send more young people to higher and secondary specialized schools on scholarships they provide.

Shortcomings in planning the training of skilled workers on-farm are having an adverse effect on the supply of this manpower to the farms. Checks which have been made show that such plans are not uncommonly compiled only on the basis of the needs of the current year without taking into account new equipment that is arriving and changes in the composition of the work force with respect to occupations and skills. Often on kolkhozes there do not even exist annual or multiannual plans concerning the need for personnel and sources from which they are to come.

Rayon agriculture administrations should supervise that kind of planning and extend practical aid to the farms in organizing it. But at present they are mainly limited to distribution of assignments outlined by the LiSSR Ministry of Agriculture for the training of workers at the local level and they are little concerned with these matters. As a result there is no linkage between

the training of personnel in the workplace and in vocational-and-technical schools, which is having an adverse effect on the supply of skilled manpower to agriculture. In our view the balance method of planning the need for training skilled personnel for agriculture through the vocational and technical system and on the farms themselves should be developed and introduced in the near future; the requirements should be broken down by all the principal occupations and specialties, and they should take into account prospects for development of production, the arrival of new farm equipment and the requirements of scientific-technical progress.

Expansion of the scale on which workers learn a second occupation and an occupation they can combine with their present one would help to reduce agriculture's need for skilled workers and would contribute to their effective use. In the 10th Five-Year Plan nearly 4,000 workers learned second occupations they could combine with their principal one. But today this is few, since they represent slightly more than 1 percent of all those working in agriculture. After all, cases are not uncommon when to correct some defect in a livestock-raising operation, in a motor, say, it is necessary to call an electrician, a mechanic, or a welder, though a person who had the relevant skill could have dealt with it. That is why it is now necessary to make an immediate analysis of possibilities for combining occupations in agricultural production and to prepare uniform recommendations.

But every farm manager and every party and soviet official must understand that we cannot solve the problem of the supply of workers to agriculture solely by increasing and improving their training. Experience indicates that a sizable portion of skilled workers and specialists who have been trained and sent to farms do not stay there. There are many reasons for this. One of them is the defects in vocational guidance. In recent years quite a bit has been done in the republic's general public schools to furnish vocational guidance to the students. Our committee has in fact been taking part in this effort. Jointly with the agriculture ministry we are preparing to bring out an informative publication entitled "Agriculture" in the series "We Are Choosing an Occupation." Production collectives are becoming involved more and more widely in this activity. As a result more and more graduates from 8-year and secondary rural schools are choosing the occupation of field crop worker, and they go directly to jobs on the farms. In 1981 the number of young people entering SPTU and technical schools was threefold greater than in 1977.

But sample checks and a poll of students show that many rural occupations are still unpopular among young people and often rural vocational-and-technical schools have great difficulty enrolling students. Quite a few who enroll in SPTU do not have an inclination toward work in field cropping and do not stay on the farms after graduation. The republic's SPTU are annually training about 8,000 skilled workers, but their number on farms is growing very slowly. The reason for this seems to be that in many general public schools the students are only informed and encouraged to enroll in the SPTU so that the quota will be filled. We are still not sufficiently concerned with real vocational guidance of young people, with instilling an interest in field cropping as a specialty, with shaping work habits. Many farms who have not been helping the schools also deserve to be reproached.

In our view, in order to improve vocational guidance work we should expand the network of interschool multiple-purpose production training centers and improve their work. It is not advisable to restrict young people's opportunities in choosing an occupation. In rural interschool multipurpose production training centers the students should have the opportunity to not only master the specifically agricultural occupations, but also occupations related to the service sphere, to construction. Not only agricultural organizations, then, but also other enterprises and organizations should be patrons affiliated with the rural schools.

Vocational guidance among young women needs substantial improvement. It is important to increase the number of specialties which young women study in VUZ's, in agricultural tekhnikums, SPTU and technical schools, since at the present time the range of occupations for them is very narrow. For instance, in higher agricultural educational institutions at the beginning of 1981 girls represented only 30 percent of all students in daytime departments; their share in agricultural tekhnikums is about 39 percent, but they represent only 16.3 percent of student bodies of SPTU.

It would be naive to suppose that the acute problem of holding young women in rural localities can be solved merely by teaching them agricultural occupations. There is a need to unite efforts of all organizations operating in rural areas (consumer services, culture, education, trade, communications, etc.) under supervision of executive committees of soviets of people's deputies.

Nevertheless, the principal cause of unsatisfactory results in holding personnel in agriculture is evidently that in the past people in rural areas lived for a long time under more unfavorable economic and social conditions than in the city, and it takes a long time to right the balance. The level of mechanization of work operations is still comparatively low in rural areas, and there is a great deal of manual work and heavy work. For instance, in the years of the 10th Five-Year Plan the level of mechanization in harvesting vegetables rose only from 37 to 41 percent, and in the loading of potatoes from 50 to 54 percent. On hog farms in 23 rayons and livestock-raising operations in 28 rayons the level of full mechanization is lower than the republic average. For example, in Birzhayskiy Rayon it is only 36 percent, in Ukmergskiy 35 percent, in Moletskiy 33 percent. This limits the possibility for reducing the number of workers and for improving working conditions.

We talk a great deal about improving the organization of work in agriculture, but no substantial changes have taken place as yet. The one-shift schedule is mainly practiced here, and as a consequence the workday is long, and people work without days off. Yet the experience of progressive farms indicates the advisability of introducing a second shift. The time has also come to think about improving the work schedule of milkmaids everywhere.

There is still quite a bit to be done in expanding the sphere of services in rural areas and in increasing the volume of services rendered. Rural areas need a broad network of restaurants, stores, baths, children's preschool institutions and pickup points for consumer services. That is why a chart for



location of consumer service institutions and enterprises in rural localities up to the year 1990 was recently adopted in the republic. The republic's gosplan, jointly with ministries and departments, has been ordered to draft and carry out measures to build restaurants, stores, children's preschool institutions and baths so that by the end of the 11th Five-Year Plan they would exist in every central settlement, and also to expand construction of housing and to improve the organization of recreation for young people in rural areas.

It is very important to pay serious attention to reducing the need for manpower in rural areas by raising labor productivity and through optimum use of labor resources. One of the potential ways of doing this is to make agricultural production less seasonal. For instance, in 1980 there were 202,000 able-bodied kolkhoz members working on the republic's farms in July, but in January only 179,000. In certain months 10-16 percent of the kolkhoz members do not take part in production. Considerable fluctuations are also observed in employment of particular categories of kolkhoz members. For instance, in 1980 those working at nonmechanized jobs were employed an average of 191.5 days, tractor-machine operators 252 days and milkmaids 281 days. It would be advisable, then, to compile interbranch balances of the need for manpower, identifying the requests of kolkhozes, sovkhozes and seasonal enterprises in the various periods of the year, which would make it possible to shift labor resources which are temporarily not employed in social production.

Developing subsidiary operations in local industry helps to reduce the seasonal nature of work in agriculture. In 1980 farmworkers employed in enterprises of local industry and in repair shops represented 4.7 percent of their total labor force. Their number has increased 29 percent over 1975. In order to ensure fuller employment of the able-bodied population throughout the year managers should also keep in mind the possibility of developing handicrafts.

More attention should be paid to optimum use of manpower attracted to agriculture. At the present time more and more people are being sent to help it from other sectors. We have still shown little interest in how sound this help is. At present there are no unified calculations of the seasonal need for manpower, and that is why the work efficiency of those sent to help agriculture is very low in view of the organizational disorders that exist. Rayon agriculture administrations should ascertain in advance how many workers in what specialties and for what period of time are needed by the individual farms. The best way out of this situation, in our opinion, is to establish permanent relations between kolkhozes and sovkhozes on the one hand and the industrial enterprises on the other, especially those involved in processing farm products, to conclude relevant contracts with them stating work quantities, the number of workers to be sent and their skills, working and living conditions, and responsibilities on both sides. Enterprises could adjust production plans in advance, and the farms could prepare to receive the people.

The decree of the May (1982) Plenum of the CPSU Central Committee emphasizes that "the augmented scale of production and the more complicated economic relations are imposing new requirements on the personnel of all branches of the agroindustrial complex with respect to improvement of planning and management of agriculture and its supply of equipment and materials. Close linkage and

coordination of the activity of the subdivisions of this sphere of the economy, high responsibility on their part for attainment of the best final results and motivation for increasing the production of quality foodstuffs need to be ensured at all levels of management."

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### Successful Rural Youth Program

Moscow SOTSIALISTICHESKIY TRUD in Russian No 6, Jun 82 pp 24-26

[Article by A. Alymkulov, senior economist of KiSSR State Committee for Labor and Social Problems: "Personnel Training in the Rural Rayon"]

[Text] Alamedinskiy Rayon is located just outside the city limits of Frunze, capital of Soviet Kirghistan, where there are many plants, factories, VUZ's and tekhnikums. And everywhere the doors are wide open to young people. But most young people remain in rural areas. Here there are many things for working hands to turn to: multibranch agricultural production, dozens of construction organizations, several industrial enterprises, the service sphere and government institutions. Farm managers and public organizations are doing a great deal to inculcate in young people a love for farm work.

In most of the rayon's secondary schools and its three 8-year schools offices have been opened for vocational guidance of the students, who receive help in selecting occupations needed in the rayon. Here is one of them. In the school at the central homestead of the Kolkhoz imeni V. I. Lenin it has been allotted a large bright classroom. On the walls are the rules and qualifying conditions for enrollment in rural vocational-and-technical schools, the addresses of the nearest ones, and a list of the specialties in which training is offered. In the room are models of farm machines, a great many posters, books, pamphlets and magazines. A display entitled "Our Kolkhoz" tells about its history, the organization of production and work, and the financial-economic indicators. The room also has a movie projector and television set.

Vocational guidance is provided to the students according to a plan approved for the academic year. The children first come here as students in the 3d and 4th grades. They are told about the principal occupations in rural areas. The school has a woodworking shop and a metal shop equipped with the necessary machine tools, equipment and hand tools where students in grades 4 to 8 acquire their first work habits. Experienced instructors provide this work training. Periodically the students meet with V. A. Opalev, chairman of the kolkhoz and deputy of the KiSSR Supreme Soviet, and with specialists and production achievers. Young men master the occupation of tractor operator in grades 9 and 10. They have access to the room devoted to mechanization of agriculture, where a DT-75 crawler tractor and many assemblies of wheel tractors have been installed. There is a working model of a diesel engine, stands with assemblies and mechanisms in cutaway and assembled, and posters helping them to get a better mastery of the way machines work. And as a consequence most of the school's graduates obtain a professional tractor operator's certificate.



Similar work is also being done in the rayon's other schools. As a result almost half of their graduates qualify for some work specialty, for example, the young men at the Nizhne-Ala-Archinskiy Secondary School become truck drivers, and those in the Orto-Alyshskiy lathe operators; young girls from the Alamedinskiy No 1 Secondary School and graduates of the Vasil'yevskiy No 1 School become poultry farm operators.

Schoolchildren's work and rest camps, which have given a good account of themselves, help to inculcate farm labor skills. Every summer more than 1,500 students in grades 7 to 9 spend a part of their vacation in these camps, which have six batches a season. They raise various farm crops with stable yields on an area of 615 hectares.

The problems of vocational guidance of schoolchildren are regularly taken up in sessions of the ispolkom of Leninskiy, Vasil'yevskiy and other rural soviets of people's deputies.

The station providing technical services to livestock-raising farms of Goskomsel'khoztekhnika is making a sizable contribution to the training of personnel for the rayon's agriculture. Its staff does the original installation of equipment on the livestock farms, monitors its operation thereafter, and makes major repairs when necessary on assemblies and units which have broken down. In addition, they train milking machine operators and mechanics and adjusters for all the rayon's livestock farms.

For students there is a demonstration room with excellent equipment. A. V. Alferov, experienced machine operator and teacher, is in charge. The classes follow an established syllabus. Those learning to operate milking machines come twice a week for 3 months, and mechanic-adjusters train for 1 month. By and large workers do not leave their jobs during training. Those who pass the examinations are issued certificates that they have qualified as Class III milking machine operators or mechanic-adjusters of livestock farm equipment.

Girls in the 9th and 10th grades at the Leninskiy Secondary School come to the same station once a week for classes. When they receive their secondary school certificate, they also receive a document that they have qualified as skilled milking machine operators.

The people in Alamedinskiy Rayon were the first in the republic to set up this kind of technical service station 7 years ago. Today such enterprises exist in many rayons of Kirghizia. But even now the people of Alamedinskiy Rayon are referred to as the first in the republic. And the point has nothing to do with who came first, but with performance. Representatives of many rayons in Kirghizia, machine operators and directors of related enterprises in Kazakhstan, Uzbekistan and other republics in Central Asia visit the station to take over its progressive know-how.

Along with vocational guidance and training of young people, fruitful work is also being done in the rayon to train and improve the vocational skills of farmworkers. Whereas the average worker in the republic's economy trains in a course for improvement of qualifications once every 8 or 9 years, the farmworkers in this region do so at least every 3 years.

We should especially note the role of Goskomsel'khoztekhnika's mobile classroom. It is called a mobile classroom because it is accommodated in a PAZ-672 bus. It has two rows of small desks and benches for 18 students. On the inside walls are a blackboard, sets of posters, and parts and assemblies of milking machines. There is also a film projector. The teacher, A. Ten, is an experienced engineer who has long work service behind him in an agricultural institute and in a school for mechanization of agriculture. Along with up-to-date equipment the milking machine operators also study aspects of economics, including such topics as "The Production Cost of Milk," "Labor Productivity on a Livestock Farm," "Profit From the Sale of Milk," and so on. At the end of 2 months of study those attending the courses take examinations and qualify as Class I or Class II milking machine operators.

The "classroom on wheels" has been in existence for only 2 years, but more than 200 specialists have already been trained in it. They include qualified milking machine operators and qualified stockmen on the Sovkhoz "Alamedin," "Prigorodnyy," the Sovkhoz imeni Kuybyshev, the Sovkhoz imeni XXIII Parts'yezd, from the "Ala-Too" Vinsovkhozkombinat [grapegrowing and winemaking sovkhov] and the State Breeding Sovkhoz imeni Strel'nikova.

Farmworkers on the Sovkhoz imeni Kuybyshev have been handling their socialist obligations successfully. In large part this is thanks to the high skill of the personnel. Everyone on the sovkhov is studying. The occupation of orchard specialists, for example, is no rarity on the farm. The fruit orchards extend over an area of more than 300 hectares. Caring for them requires more than one dozen workers who are able to achieve high yields and to combat the pests of fruit crops. That is why the orchard specialists prove their qualifications annually in a course which takes up 6 hours a day for 6 days. Nevertheless, the syllabus makes it possible for them to study such topics as "Safety Equipment in Working With Toxic Chemicals," "New Methods of Combating Orchard Pests," "Soil and Crop Practices in Fruitgrowing," and so on. This is also bearing fruit. For instance, whereas in 1977 the sovkhov harvested 37 quintals of fruit from every hectare, at the end of the last 5-year period it harvested 62 quintals from every one of 300 hectares.

Vegetable specialists are also being trained every year. They study such topics as "Importance of Crop Rotation in Obtaining High and Stable Yields of Vegetable Crops," "Soil and Crop Practices in Raising Early Varieties of Onions, Cabbage, Beets and Carrots," "Flowcharts, Output Quotas and Remuneration in Vegetablegrowing," and so on. The classes are conducted by sovkhov specialists as well as staff scientists of the Kirghiz Scientific-Production Association for Field Cropping.

Particular attention is paid to training machine operators and to improving their qualifications. Every year about 50 of them attend 64-day courses. In recent years about 80 new broad-profile machine operators have been trained on the farm. In addition, more than 70 have improved their qualifications or mastered a second occupation in that time. Every year 80-100 truck drivers, 10-15 combine operators, and 35-45 milking machine operators and a large number of workers in other occupations go through retraining. The farm's machine operators confront large tasks in the 11th Five-Year Plan. In just the first

years they are to master 16 new types of machines and machinery. They include the SKT-2 tomato-harvesting combine, two TKOS-15 tomato-crushing units, three ATsPT 2.8-130 milk trucks for carrying tomato pulp (in addition to the Kuybyshev Sovkhoz people, these machines are also being introduced by the Frunze Vegetable and Meat Sovkhoz in Sokulukskiy Rayon).

The Sovkhoz imeni Kuybyshev is proud of the rating of its experimental and demonstration farms, with good reason. Together with the Kirghiz Scientific-Production Association for Field Cropping its workers were the first in the republic to test the tomato-harvesting combine--tomatoes of special varieties were harvested on 300 hectares with it. At the same time a unit was tested for crushing overripe tomatoes, turning them into pulp and subsequently delivering this in a special milk truck to the Tokmak Canning Plant.

The vineyards of the "Ala-Too" Vinsovkhozkombinat extend over an area exceeding 800 hectares. Grape juice and concentrates for making champagne and dry wines are manufactured at the sovkhos plant. That is why workers in the local SPTU [rural vocational-and-technical school] are trained mainly to work in vineyards and orchards. Indeed 105 workers have been trained on the sovkhos itself, including 50 irrigation specialists, and 50 auxiliary workers have improved their qualifications in occupations that include pruning grape vines, operating tractors and driving trucks.

The space and equipment of the local SPTU are used as a teaching facility. The courses are taught by V. Sushko, sovkhos chief engineer, S. Dyusheyev, chief agronomist, as well as the combine's hydraulic engineers, engineers, economists, time study experts, bookkeepers and other specialists. Since much attention is paid to personnel training, it has been possible to build up a reserve of tractor operators and truck drivers who can sit at the wheel of a machine or truck any time. The adequacy of the supply of skilled manpower makes it possible for the combine to regularly achieve high production figures.

About 200 skilled farmworkers graduate every year from the two local SPTU and their affiliates. Most of the workers trained on the farm qualify for a specialty in courses. Machine operators make up the bulk of the workers trained in courses. In the rayon at the present time there are more than 1,000 tractors, but a far larger number of tractor operators (in the republic there are only 99.3 machine operators for every 100 tractors and grain-harvesting combines at the present time, and the number is still less in a number of rayons). We should note that all the additional machine operators here are local inhabitants who are working as repair mechanics and office personnel, but they have qualified for machine operator certificates according to all the rules. This emphasis on teaching everyone to operate a machine makes it possible for the rayon to avoid difficulties in the season of the most feverish field work. After all, the farms of the people in Alamedinskiy Rayon, just like the other rayons in the Chu Valley are located at varying altitudes and the planting and harvesting times do not coincide on farms in the lower and upper zones. That is why the workers of the "Alamedin" Sovkhoz help their colleagues on the "Ala-Archa" Sovkhoz to plant grain, to cut hay, and they in turn receive help from them when they need it. This kind of cooperation and division of labor

speed up the planting and harvesting work and thereby contribute to achieving higher yields.

The work of the people in Alamedinskiy Rayon has won high praise. Several years in succession the rayon has been awarded the challenge Red Banner of the Kirghiz CP Central Committee, the KiSSR Council of Ministers, the Kirghiz Trade Union Council and the republic's Komsomol Central Committee. They successfully completed the first year of the 11th Five-Year Plan, exceeding socialist obligations for sale of all types of farm products to the state, including the plan for selling grain to the state, which was fulfilled at a level of 116 percent, vegetables at 119, potatoes at 132, meat and milk at 104, wool at 113, and eggs at 106 percent. And the astutely organized program for training rural workers and for improvement of their qualifications has undoubtedly had an important role to play in the high production figures achieved by the rayon.

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## EDUCATION

### GOSPLAN OFFICIAL DISCUSSES INTERMEDIATE EDUCATION

Moscow SREDNEYE SPETSIAL'NOYE OBRAZOVANIYE in Russian No 6, Jun 82 pp 6-11

[Article by A. S. Shuruyev, subdivision chief of USSR Gosplan, candidate of economic sciences: "Development of Secondary Specialized Education in the Present Stage"]

[Text] The goals, tasks, strategy and tactics of the country's economic and social development in the coming period have been set forth in the report address of the CPSU Central Committee to the 26th party congress and in the Basic Directions for the Economic and Social Development of the USSR Over the Period of 1981-1985 and Up to the Year 1990, which were approved by the congress. Relying on the advantages of a socialist economy, with its inherent conformity to plan and proportionality, the party has envisaged in the Basic Directions ... the comprehensive nature of the country's economic and social development, embracing both the productive forces and also social relations. The problem of improving the entire system for educating and training personnel occupies an important place in that context. Provision is made for a consistent rise in the level of education of the workers and for training workers and specialists who are technically literate in numbers to meet the needs of the country's scientific-technical and social progress.

The decisions of the congress have outlined a further planned quantitative growth and qualitative improvement of the system of higher and secondary specialized education. The tasks set for the 11th Five-Year Plan in development of higher and secondary specialized education are based on the success achieved in the years of the past 5-year plans.

In past years substantial progress was achieved in all lines of development of the educational system. The need for the developing sectors of the economy and culture for total manpower in a particular composition and level of skills was the most important factor determining the growth rate of each of the forms of education. Skilled personnel and consequently the educational system must meet higher requirements because production and the social development of Soviet society are being technically and technologically equipped at an ever higher level.

At the present time secondary general education has become for all practical purposes the minimum level of education for young people. In the years of the

10th Five-Year Plan 25.2 million young men and women received this kind of education. And during the years of Soviet power (1918-1980) 88.2 million persons received secondary general education; tekhnikums and training schools, in which 17 million persons acquired secondary general education, made a contribution to the cause of achieving universal secondary education of young people.

The educational system that has taken shape in our country guarantees a high level of general-educational and specialized training of the workers. Whereas in 1939 only 10.8 percent of the entire population aged 10 and over had higher and secondary (complete and partial) education, at the outset of 1981 the relative share of persons with such education rose to 66 percent. In the Soviet population of 266.1 million the number of persons with higher and secondary (complete and partial) education was 146 million persons. The share of people with this kind of education is still higher among employed persons. It increased from 12.3 percent in 1939 to 88.3 percent at the outset of 1981.

The number of persons with secondary specialized education has increased as follows (in millions of persons): 7.9 in 1959, 13.4 in 1970 and 25.3 at the outset of 1981. The percentage of the population with secondary specialized education has grown very appreciably in those years: from 3.8 percent in 1959 to 5.5 percent in 1970 and 9.5 percent at the outset of 1981. In the period between the two last population censuses (1970 and 1979) the number of persons with secondary specialized education rose 75 percent, including a 73-percent increase among employed persons. The level of education of young workers has risen especially rapidly. Whereas in 1975 66 percent of young workers under age 30 had higher, partial higher, and secondary (specialized or general) education, the figure in 1980 was 80 percent. Within that group 17.4 percent of young workers of that age had secondary specialized education.

The situation of secondary specialized education at the present time is characterized by the following quantitative indicators.

The number of secondary specialized educational institutions was 4,383 in 1980, which is 81 educational institutions more than in 1975. This number has grown slowly (14.7 percent over 1965 and 16.2 percent over 1940). To a certain extent we can be proud that the number of secondary specialized educational institutions has become stable.

At the present time (according to 1980 data) the number of students in tekhnikums and training centers is 4,612,000 persons, including 2,894,000 persons in daytime departments and 1,718,000 in evening and correspondence departments. Over the last 15 years (from 1965 to 1980) the number of secondary students increased 950,000, or 26 percent, including an increase of 87,000 persons, or 1.9 percent, in the years of the 10th Five-Year Plan (from 1975 to 1980). Thus the number of students in secondary specialized educational institutions has also become stable in recent years. Moreover, in 1979 and 1980 the number of students dropped by 59,000. This reduction is explained by two causes: first, the accelerating transition of secondary specialized educational institutions to enrollment of graduates of the 10th grade and the corresponding reduction of the number of years students spend in school, and second, the extremely low growth rates of the number of students in evening and correspondence departments (only 10,000 persons in the 1975-1980 period).

Every union republic now has an elaborate network of secondary specialized educational institutions. In 1980 there were 2,642,000 students in secondary specialized educational institutions in RSFSR, 803,000 in UkSSR, 265,000 in KaSSR, 238,000 in UzSSR, 163,000 in BSSR. In the years of the 10th Five-Year Plan, while the total number of secondary students rose 1.9 percent, their number in UzSSR increased 28.3 percent, in TuSSR 15.6 percent, in KaSSR 14.8 percent, and in KiSSR 11.5 percent.

Enrollment in secondary specialized educational institutions is continuing to increase, though the rates of this growth have dropped noticeably in the recent past. Whereas in 1965 1.1 million persons were enrolled in tekhnikums and training centers, in 1980 the figure was already 1,457,000. Over the last three 5-year periods enrollment has increased by 350,000 persons, or 32.5 percent, including an increase of 53,000 persons, or 3.8 percent, during the 10th Five-Year Plan.

Fulltime enrollment of workers in secondary specialized educational institutions has grown in both absolute and relative terms. It increased from 582,000 in 1965 to 946,000 in 1980, or 68 percent, including an increase of 50,000 persons during the 10th Five-Year Plan, or 5.6 percent.

At the same time secondary specialized education in evening classes and by correspondence has actually become stable. Enrollment in these forms of study dropped from 518,000 persons in 1965 to 501,000 in 1970, and then began to increase slowly--to 508,000 in 1975 and to 511,000 in 1980, but thus it did not reach the 1965 level. Moreover, over the last 9 years (1971-1980) enrollment in evening departments has dropped from 157,500 to 137,100 persons, while in correspondence departments it has risen from 347,300 to 373,500 persons. The relative share of enrollment of workers who continue with their jobs has dropped steadily: from 47.1 percent in 1965 to 35.1 percent in 1980.

The last 15 years have been years of constant transition of secondary specialized educational institutions from enrollment on the basis of 8-year education to enrollment on the basis of 10-year education. Total enrollment in tekhnikums and training centers of persons with complete secondary education increased from 305,000 to 952,000 persons, i.e., more than threefold. As a result the number of students in secondary specialized educational institutions accepted from the 8th grade dropped as follows between 1971 and 1980: total--28 percent, in daytime departments--12 percent, evening departments--76 and correspondence departments--55 percent. At the same time the number of students enrolled from grade 10 increased as follows over those years: total--66 percent, daytime departments--77 percent, evening departments--53 percent and correspondence departments 61 percent.

The number of specialists graduating from secondary specialized educational institutions has been growing steadily and rapidly. Over the last 15 years it has increased from 621,500 persons in 1965 to 1,274,700 in 1980, i.e., more than twofold. At the same time the number of workers graduating from tekhnikums and training schools which they attended fulltime increased from 332,800 to 834,100 persons, or 2.5-fold, and the number of persons graduating from secondary specialized educational institutions which they attended while



working increased from 288,700 to 440,600 persons, or 53 percent. The relative share of the number graduating from daytime departments increased from 53.6 percent in 1965 to 65.4 percent in 1980.

As is evident from a comparison of the figures on enrollment and the number graduating, the growth rates of the number of specialists graduating from secondary specialized educational institutions have considerably exceeded the growth rates of enrollment in these educational institutions over the last 15 years. This is also explained by the rapid growth of the relative share of specialists trained from among students who had already completed secondary education. Over the last 9 years (between 1971 and 1980) the number of persons graduating from tekhnikums and training centers who were enrolled from the 8th grade dropped from 633,000 to 523,000 persons, and the number graduating who were enrolled from the 10th grade increased from 450,300 to 705,300 persons. These changes are characteristic of all forms of study--daytime, evening and correspondence.

In the years of Soviet power (1918-1980) 26.5 million middle-level specialists were graduated from secondary specialized educational institutions. The number of specialists graduating has increased for all the sectors of the economy.

The Basic Directions for Development of the USSR National Economy Over the Period of 1976-1980 called for the following: "Training 9.6 million specialists with higher and secondary specialized education. Particular attention is to be paid to furnishing personnel to regions of intensive development of the productive forces." Our country successfully fulfilled the target envisaged in those years for the number of middle-level specialists graduating.

In the years of the 10th Five-Year Plan there was a substantial expansion of the physical plant and facilities of secondary specialized educational institutions. Over the 5-year period 1,811,000 square meters of teaching and laboratory buildings of tekhnikums and training centers were added. This made it possible to improve somewhat the working conditions in them, to increase the area of classroom buildings in 1980 (for daytime students) to 6.7 square meters, as against 6.0 square meters in 1975. In the 1976-1980 period 2,280,000 square meters of housing were built for students of tekhnikums and training centers.

In the report address of the CPSU Central Committee to the 26th party congress Comrade L. I. Brezhnev noted the success of the Soviet system of higher and secondary specialized education. "At the same time," Comrade L. I. Brezhnev continued, "much can and needs to be improved in this system. I am thinking above all of the quality of teaching, of strengthening the relationship with production.... Along with development of the economy, there is also a change in the demand for personnel in various specialties. And that means that the system for planning personnel training in VUZ's must also react responsively to these changes." Of course, this fully applies to secondary specialized educational institutions as well.

The plan for training specialists in the 1981-1985 period was compiled so as to take into account the demographic situation which has come about. It set



the tasks of coordinating the plans for training of specialists and skilled workers, for optimum combination of the various ways in which specialized and vocational education is acquired, for linkage and continuity, so that young people are optimally distributed among the particular types of educational institutions in accordance with the future composition of the work force with respect to level of education and the inclination of young people themselves. The plan for training specialists was drafted in close connection with development of the respective forms of general secondary and vocational education; it was subordinated to the task of optimum use of the country's labor resources.

The interrelated set of efforts to bring the various levels of the system of education and personnel training into conformity with the pattern of requirements of social production for workers at each educational and vocational-skill level was based on two groups of balance calculations.

First, the training of specialists and skilled workers was comprehensively planned so as to take into account the balance of labor resources. Two comprehensive balance calculations were used: 1) the influx of graduates of general secondary schools into programs for training workers and specialists in vocational-and-technical schools, secondary specialized educational institutions and higher educational institutions; 2) the need for skilled workers and specialists with higher and secondary specialized education and where they are to come from.

Second, use was made of the unified annual plans drafted by councils of ministers of union republics (beginning in 1977) on filling vocational and technical schools and secondary specialized educational institutions and also the 9th grades of general secondary schools with graduates of the 8th grades of these schools along with distribution of assignments among autonomous republics, krais, oblasts, cities and rayons on the basis of the needs of enterprises, construction projects and organizations for skilled workers and specialists and the need to guarantee universal secondary education of young people.

Work on the 11th Five-Year Plan showed that along with the nationwide system introduced for planning the further study in various educational institutions of graduates of the 8th grade there was a need to also ensure planned distribution of graduates of the 9th grade: they were sent for further study to the network of vocational-and-technical education (including technical schools), to secondary specialized educational institutions (with enrollment from the 10th grade) and to higher educational institutions, as well as to work in the economy.

So, beginning in 1982 councils of ministers of union republics were ordered to draft and approve unified annual plans for filling vocational-and-technical schools, technical schools, the 9th grade of secondary schools, secondary specialized educational institutions and higher educational institutions with graduates of the 8th and 10th (11th) grades of general secondary schools, with distribution of assignments among autonomous republics, krais, oblasts, cities and rayons on the basis of the need of enterprises, construction projects and

organizations for skilled workers and specialists, which resulted in the filling of those types of educational institutions with young people for the beginning of the academic year. For the sake of uniformity in drafting the unified plans for filling educational institutions with graduates of general secondary schools, USSR Gosplan sent to all the gosplans of the union republics the "Sample Form of the Unified Plan for Filling Vocational-Technical and Other Educational Institutions With Graduates From General Secondary Schools for the Year 19...."

In planning the quantitative indicators for development of secondary specialized education in the 11th Five-Year Plan the following factors were also taken into account.

Given the drop in the growth of labor resources, high rates of economic development can be maintained only through a substantial improvement of the qualitative composition of all manpower. This requires improvement of personnel training and improvement of qualifications at all levels. Only people with good vocational training can perform the task of increasing the efficiency and quality of work and guarantee a high level of labor productivity and more efficient use of the means of labor.

At the same time measures to expand the training of specialists which have been taken over the last 15 or 20 years have made it possible to substantially increase the level of satisfaction of the needs of the economy for specialists and by and large to eliminate the gap between the number of engineering and technical personnel and the number of graduate specialists in industry, construction and other branches of material production. Beginning in 1970 for all practical purposes the need for specialists with secondary specialized education has been fully met.

The rapid growth in the number of specialists graduating makes it possible to increase the relative share of specialists in the growth of the number of people employed in the national economy both steadily and on an ever larger scale.

The number of specialists graduating during the 11th Five-Year Plan is 10.5 million persons, the total number of workers is increasing in substantially smaller proportions than in the previous period, and as a result the saturation of the economy with specialists is again rising substantially, and the share of specialists in the total growth of the employed labor force will go still higher.

In recent 5-year periods there has been a gradual drop in growth rates of enrollment in secondary specialized educational institutions. Taking this into account the enrollment of students envisaged for the 11th Five-Year Plan has become stable for most ministries and departments except for certain scarce specialties, the principal ones among which are "nurse," "training in pre-school institutions" and "teaching in the elementary grades of the general public school." Taking into account the expanded training of these occupations, enrollment in secondary specialized educational institutions in 1985 will increase to 1,505,200 persons, which is 3.3 percent higher than enrollment

in 1980. The number of students in secondary specialized educational institutions will increase approximately 3.6 percent over the 5-year period.

Achievement of changes in the relative share of the various forms of study is a factor in increasing the effectiveness of activity of the secondary specialized school, which is especially important in the light of the demographic situation that has come about. Over the last 20 years there has been a sharp increase in the share of daytime study in total enrollment in tekhnikums: from 53.8 percent in 1960 to 65 percent in 1980. Under present conditions there are no further opportunities for increasing the relative share of daytime study. The problem of expanding the training of specialists who are employed through the evening and correspondence forms of study is coming into the foreground.

The 26th CPSU Congress has called for development and improvement of evening and correspondence education. The USSR Council of Ministers has adopted a decree entitled "On Further Improvement of the Training of Specialists With Higher and Secondary Specialized Education While They Are Still Employed." This document notes that further development and improvement of correspondence and evening higher and secondary specialized education in accordance with the decisions of the 26th CPSU Congress have great importance under present conditions for supplying highly qualified specialists to the economy and for optimum use of labor resources.

In accordance with this instruction, the 11th Five-Year Plan provided that in the 1981-1985 period enrollment would increase 1.6 percent in daytime departments of secondary specialized educational institutions and 6.5 percent in evening and correspondence departments.

One of the basic tasks in the further improvement of the effectiveness of secondary specialized education will be achieving more optimum regional location of the training of specialists. In the 1981-1985 period, along with the increased enrollment in secondary specialized educational institutions by 3.3 percent in the country as a whole, enrollment in tekhnikums and training centers will increase 24.7 percent in UzSSR, 17.3 percent in TuSSR, 10.4 percent in KaSSR, 10.1 percent in UkSSR, 8.0 percent in ArSSR, and 6.3 percent in KiSSR. The regional location of the training of specialists will be related more closely to development of the productive forces and to demographic factors.

In the years of the 11th Five-Year Plan principal attention will be paid to achieving accelerated development of secondary specialized education in the regions of Siberia and the Far East. USSR Gosplan, USSR Ministry of Higher and Secondary Specialized Education and RSFSR Council of Ministers have drafted and are now carrying out an extensive program for improvement of the supply of personnel to those economic regions.

Because of demographic changes, beginning in 1976 there has been a gradual reduction in our country of the number of students graduating from the 8-year school, and beginning in 1978 a drop in the number of students graduating from the daytime secondary school. This has tended to diminish competition for

enrollment in secondary specialized educational institutions. Competition over the last decade has dropped as follows (number of applicants for each place on the basis of planned enrollment): for daytime study--from 2.02 in 1971 to 1.92 in 1975 and 1.61 in 1981; for evening study--from 1.54 to 1.40 and 1.25, respectively; for correspondence study--from 1.44 to 1.43 and 1.26, respectively. There has accordingly been an appreciable drop in competition among those who have successfully passed examinations. In 1980 competition among those who had successfully passed examinations was 1.1 for daytime and evening study and 1.08 for correspondence study.

Under present conditions, then, measures need to be thought out for improving the system of attracting people to secondary specialized educational institutions who are discharged from the ranks of the Soviet Army, to select for those educational institutions the best-prepared young people who have consciously chosen their occupation. This requires that ministries and departments and secondary specialized educational institutions make an important additional effort both to apply the methods already in effect and also to develop new forms of attracting young people to educational institutions.

Consideration is now being given to the question of revising the length of evening and correspondence study in secondary specialized educational institutions with a view to shortening the course of study in certain specialties so as to take into account previous training, length of service and type of work done by people entering these educational institutions. Beginning in 1982, then, an experiment will be conducted whereby enrollment in certain tekhnikums and certain specialties would be based on comparing references instead of competitive entrance examinations to the tekhnikum. Servicemen discharged from active military service would be accorded the right to enroll in secondary specialized educational institutions without going through the competition.

Thus the new and very important tasks of filling secondary specialized educational institutions call for carrying out many measures, including changing the rules for acceptance in these educational institutions. Planned distribution of young people over all the channels for reproduction of trained manpower requires the drafting of practical measures in order to guide the movement of flows of students into the respective educational institutions. Along with nonmaterial and financial incentives, there is a need to set up an effective system of vocational guidance and selection of young people for educational institutions.

Secondary specialized educational institutions confront the task of shaping the new student body. This is a job that must be a constant concern in every tekhnikum and training center.

Since during the years of the 11th Five-Year Plan the difficulties of filling tekhnikums and training centers with graduates of the 8th grade will persist and even become more intense, councils of ministers of union republics and USSR ministries and departments have envisaged a further increase in the relative share of enrollment in secondary specialized educational institutions from the 10th grade. Whereas in the years of the 10th Five-Year Plan the share of total enrollment in tekhnikums and training centers from the 10th

grade increased from 50.8 percent in 1975 to 62.9 percent in 1980, and the share of enrollment in daytime departments from 39.7 to 50.3 percent, in the years of the 11th Five-Year Plan the share of enrollment from the 10th grade is to increase to 67.0 percent, including 56.7 percent in daytime departments.

One of the basic indicators of the performance of secondary specialized educational institutions reflecting the quantitative aspect of the training of specialists is the number of graduates. The number of specialists graduating determines the level of satisfaction of the economy's need for them in the aggregate and by individual specialties; the growth rates of saturation of the sectors of the economy and culture with personnel, the possibility of furnishing specialists to new enterprises going into operation and to regional industrial complexes which are developing intensively.

The State Plan for the USSR's Economic and Social Development in the Period 1981-1985 calls for 10,466,700 specialists to graduate from higher and secondary specialized educational institutions in the 11th Five-Year Plan, including 6,351,500 specialists with secondary specialized education. In 1985 the number of specialists graduating from secondary specialized educational institutions will increase 5 percent over 1980.

In the 11th Five-Year Plan there will be fuller satisfaction of the economy's need for specialists by virtue of a further rise in the effectiveness of operation of the secondary specialized school and improvement of evening and correspondence study. The regional supply of specialists has improved, especially for those specialties for which the individual union republics have a small requirement and which will be trained on a cooperative basis. The training of specialists is expanding in the regions of Siberia and the Far East and also in other regions and industrial centers which are developing intensively.

One of the results of improving the quality of the training of specialists will be a further drop in the attrition rate of students from secondary specialized educational institutions. The drop in the rate of attrition is one of the principal factors in the further increase in the number of specialists graduating in the context of stabilized enrollment in secondary specialized educational institutions.

At the present time the staff of tekhnikums and training centers have drafted 5-year plans for development of their respective educational institutions. The students and teachers and all staff members of secondary specialized educational institutions are striving to fulfill those plans. The 11th Five-Year Plan is unquestionably an important new stage in development of the Soviet secondary specialized school and will be marked by a further improvement in the quality and a rise in the effectiveness of its activity.

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## DEMOGRAPHY

### ETHNIC COMPOSITION OF USSR POPULATION

#### Nationality, Language, Republic Correlations

Moscow VESTNIK STATISTIKI in Russian No 5, May 82 pp 23-29

[Article by I. Zinchenko: "The Ethnic Composition of the USSR Population"]

[Text] The analysis of the developmental prospects and problems of ethnic relations in our country and the conclusions and recommendations recorded in the accountability report of the Central Committee to the 26th CPSU Congress enriched the theory of nationality and testified to the creative implementation of Leninist principles of ethnic policy during the stage of mature socialism. It is becoming increasingly important to study ethnic processes, the formation and development of the new historic community of the Soviet population and the cultural and personal aspects of the Soviet way of life.

Inter-ethnic relations are now colored by the equality of the peoples of the USSR, the converging levels of economic development in the union republics, the identical social structure of their populations and the sociopolitical and ideological unity of all people in the country. The Soviet republics have populations with a multinational composition. Inter-ethnic ties represent one facet of the Soviet way of life.

In December 1982 our country will celebrate the 60th anniversary of the formation of the Union of Soviet Socialist Republics as a great triumph of the fraternal friendship of people, the ideals of proletarian internationalism and the CPSU's Leninist policy on nationalities. The decree of the CPSU Central Committee "On the 60th Anniversary of the Formation of the Union of Soviet Socialist Republics" says: "On this glorious anniversary the entire world will see the Soviet Union as a friendly family of equal republics, working together to build communism."

V. I. Lenin formulated party policy on nationalities, substantiated it with solid grounds and supervised its implementation during the first years of Soviet rule. One of the most important achievements of this policy was the formation of the Soviet republics and their voluntary union in a single state--the Union of Soviet Socialist Republics. The USSR unites 15 union republics which contain 20 autonomous republics and 8 autonomous oblasts, and with 10 autonomous okrugs in 1 kray and 7 oblasts of the RSFSR. Ethnic groups with their own governmental structure represent 98 percent of the total population (see Table 1) and other ethnic groups represent 2 percent (these are mainly peoples whose main ethnic territories are

located outside the USSR). The boundaries of the territories created according to the ethnic principle generally encompass the locations inhabited by the majority of the groups in question.

Socialist ethnic relations are being developed and perfected. It was noted at the 26th CPSU Congress that "the unity of the Soviet nationalities is stronger today than ever before. Of course, this does not mean that all problems in the sphere of ethnic relations have already been solved. The developmental dynamics of a multinational state as large as ours give rise to many problems which require the closest party scrutiny."<sup>1</sup>

For example, in connection with the increased number of citizens of non-native nationalities in several republics, the more thorough study of the peculiarities of the ethnic development of these population groups has become important.

During the all-union census of 1979, just as in earlier censuses in the USSR, responses to questions about nationality and native languages were recorded in the words of the respondents. In addition to the native language, another language of the USSR was recorded if the respondent felt that he was fluent in the language or could converse freely in it. The nationality and native language of children were cited by their parents.

More than 100 nationalities and ethnic groups live and work together in our country as one friendly family. Some 22 nationalities have over 1 million members, 30 have from 100,000 to 1 million and dozens of others have from a few hundred to 100,000.

The census indicated that the population figures of the majority of peoples inhabiting the USSR had risen since the last census. Changes in the population figures of some nationalities were the result of natural demographic and ethnic processes.

The development of ethnic processes is determined largely by the territorial settlement patterns of nationalities. Census data provide broad opportunities for this kind of analysis because they present detailed information about each territorial administrative unit in the country. The territorial dispersion of some groups or, on the contrary, the compact nature of their ethnic territory are factors with differing effects on ethnic processes.

Table 2 records census data on the population figures of the native nationalities of union republics living within these republics.

The census data indicate that the highest percentage of persons living within the territory of their own republic is characteristic of the Georgians, Lithuanians, Latvians, Turkmens and Estonians.

The most compact administrative structure in autonomous republics is characteristic of the Balkar, Abkhaz, Karakalpak, Kabardin, Agul, Rutul, Tabasaran, Yakut and Tuvian groups--from 90 to 97.5 percent of the population of these nationalities lives within the corresponding republic.



Table 1

Native Nationalities of Union and Autonomous Republics, Autonomous Oblasts  
and Autonomous Okrugs (1979 All-Union Census Data)

<u>Nationality<sup>1</sup></u>	<u>Number of persons of this nationality, thousands</u>	<u>Percentage of persons regarding language of this nationality as their native language</u>	<u>Percentage of persons fluent in another USSR language</u>
Total USSR population	262,085	93.1 <sup>2</sup>	28.1
Russian	137,397	99.9	3.6
Ukrainian	42,347	82.8	56.9
Uzbek	12,456	98.5	52.1
Belorussian	9,463	74.2	68.7
Kazakh	6,556	97.5	54.4
Tatar	6,317	85.9	73.8
Azerbaijani	5,477	97.9	31.5
Armenian	4,151	90.7	44.3
Georgian	3,571	98.3	27.6
Moldavian	2,968	93.2	51.3
Tajik	2,898	97.8	40.2
Lithuanian	2,851	97.9	53.6
Turkmen	2,028	98.7	27.0
Kirghiz	1,906	97.9	33.5
Jewish	1,811	14.2	41.3
Chuvash	1,751	81.7	70.3
Dagestan ethnic groups	1,657	95.9	68.6
Latvian	1,439	95.0	58.9
Bashkir	1,371	67.0	67.7
Mordovian	1,192	72.6	73.2
Estonian	1,020	95.3	26.1
Chechen	756	98.6	76.7
Udmurt	714	76.5	70.8
Mari	622	86.7	75.4
Ossetian	542	88.2	77.1
Buryat	353	90.2	74.4
Yakut	328	95.3	56.7
Komi	327	76.2	70.2
Kabardian	322	97.9	77.3
Karakalpak	303	95.9	55.9
Ingush	186	97.4	80.2
Tuvin	166	98.8	59.4
Komi-Permyak	151	77.1	70.3
Kalmyk	147	91.3	85.1
Karelian.	138	55.6	64.5
Karachay	131	97.7	76.4
Adegey	109	95.7	78.0
Abkhaz	91	94.3	76.3

[Table continued on following page]

[Continuation of Table 1]

Native Nationalities			
Nationality <sup>1</sup>	Number of people of this nationality, thousands	Percentage of persons regarding language of this nationality as their native language	Percentage of persons fluent in another USSR language
Khakas	71	80.9	71.3
Balkar	66	96.9	78.8
Altay	60	86.4	71.1
Cherkess	46	91.4	71.9
Siberian ethnic groups with their own autonomous okrugs:			
Nenets	30	80.4	67.2
Evenk	27	42.8	59.3
Khanty	21	67.8	56.4
Chukchi	14	78.3	64.2
Koryak	7.9	69.1	65.8
Mansi	7.6	49.5	45.5
Dolgan	5.1	90.0	74.5
Other nationalities	5,716	55.5	57.2

\* Arranged in order of size.

\*\* The remaining 6.9 percent called the languages of other nationalities (mainly Russian) their native language. For example, Russian was cited as the native language of 83.3 percent of the Jews, 69.2 percent of the Nivkhy, 61.1 percent of the Vepsy, 44.1 percent of the Karelians and so forth; 25.7 percent of the Bashkirs said that Tatar was their native language.

Migration processes connected with the development of the economy and culture of each union republic, the development of new regions in the country and large construction projects have a significant effect on the settlement patterns of nationalities. Migration results in the redistribution of labor resources throughout the nation and changes the ethnic composition of the population of various territories. It affects the development of ethnic processes, increases the number of persons fluent in a second or even a third language and contributes to the development of common features in the national consciousness of all peoples in the country.

Census data about the number of urban and rural inhabitants of various nationalities are important. It is a well-known fact that ethnic processes are more intensive in cities than in rural communities. Urbanization affects the socio-demographic structure of nationalities and ethnic groups, provides broader opportunities for the study of the Russian language as the language of inter-ethnic communication and broadens the sphere of its use. Today's industrial city changes some elements of material culture, influences the standards and traditions of family life and contributes to the development of common features in the production sphere, culture and everyday life. During the years of Soviet rule, 1,203 cities

have been founded. On 1 January 1981 there were 48 cities with a population of over half a million and 21 with over a million inhabitants.

Table 2

Number of People of Native Nationality in Union Republics

Nationality	Number of people of this nationality, thousands	Number living within the corresponding republic	
		Thousands	Percentages
Russian	137,397	113,522	82.6
Ukrainian	42,347	36,489	86.2
Belorussian	9,463	7,568	80.0
Uzbek	12,456	10,569	84.9
Kazakh	6,556	5,289	80.7
Georgian	3,571	3,433	96.1
Azerbaijani	5,477	4,709	86.0
Lithuanian	2,851	2,712	95.1
Moldavian	2,968	2,526	85.1
Latvian	1,439	1,344	93.4
Kirghiz	1,906	1,687	88.5
Tajik	2,898	2,237	77.2
Armenian	4,151	2,725	65.6
Turkmen	2,028	1,892	93.3
Estonian	1,020	948	92.9

Between 1970 and 1978 the percentage of urban inhabitants rose in almost all nationalities, but most of all among Belorussians, Lithuanians, Balkars, Kabardians, Maris, Karakalpaks, Bashkirs, Buryats, Karelians and others.

Among the native nationalities of union and autonomous republics, autonomous oblasts and autonomous okrugs, the percentage of urbanites on the date of the census was higher than the union average (62 percent) for Russians (74.4 percent), Armenians (69.7 percent), Tatars (63 percent) and Jews (98.5 percent). The percentage of urbanites ranged from 54.7 to 60.1 percent among Belorussians, Ukrainians, Lithuanians, Latvians, Estonians, Karelians, Laks and Ossets. The percentage of rural inhabitants in the native nationalities of union and autonomous republics was highest among Kirghiz, Moldavians, Tajiki, Tuvins, Avars, Chechens, Yakuts and others.

The problems of urbanization and the urban-rural interrelations that contribute to mutual enrichment in the spheres of culture, daily life, ethnic traditions and so forth require special study.<sup>2</sup>

Census data about the native language and second language of the people inhabiting our country provide an opportunity to study linguistic processes among the peoples of the USSR.

The native language does not always correspond to the nationality. The adoption of the language of a particular nationality as the native language of people of

another nationality is the natural result of the progressive process of the constant convergence of nationalities and ethnic groups in our country. Degrees of linguistic assimilation vary. The percentage of people who regard the language of their nationality as their native language is still high among the native populations of union republics--ranging from 74.2 to 99.9 percent. The percentage ranges from 55.6 to 99.1 percent among the native populations of autonomous republics, from 14.2 to 97.7 percent in autonomous oblasts and from 42.8 to 90 percent in autonomous okrugs.

The data of the 1979 census, just as 1970 data, indicate that the people of a particular nationality who live outside their own republic are more likely to convert to another native language. The conversion process can vary. For example, Uzbek was listed as the native language of 98.8 percent of the Uzbeks living in Uzbekistan and 96.9 percent of the Uzbeks living in other republics. Kazakh was cited as the native language of 98.6 percent of the Kazakhs living in Kazakhstan and 92.8 percent of those living in other republics. The respective figures for other nationalities were 99.3 and 92.8 percent for Tajiki, 99.2 and 91.1 percent for Turkmens and 98.7 and 92.6 percent for Azerbaijanis. There has been a noticeable rise in the percentage of Estonians, Belorussians, Ukrainians, Latvians, Lithuanians, Georgians, Armenians and Moldavians living outside their own republics whose native language is the language of another nationality. For example, Belorussian was listed as the native language of 83.5 percent of the Belorussians living in Belorussia and 36.8 percent of those living outside the republic. Ukrainian was listed as the native language of 89.1 percent of the Ukrainians in the Ukraine and 43.8 percent of Ukrainians in other republics.

Languages of other nationalities are accepted more readily in cities than in rural communities. In the USSR as a whole, 91.1 percent of the urbanites recorded the language of their nationality as their native language, but the figure in rural areas was 96.2 percent. This difference is noticeable among Belorussians, Ukrainians, Moldavians, Mordovians, Komis, the Chuvash, Karelians, Udmurts and others. The percentage of persons citing the language of their nationalities as their native language has remained high in both urban and rural communities among the native populations of the Baltic and Central Asian union republics, Georgians, Azerbaijanis, Chechens, Ingush, Tuvins, Kumyks, Balkars, Kabardians and others.

In our multinational and multilingual country, many people are bilingual, and the census data indicate how the language of inter-ethnic communication and other languages of the USSR are being mastered by various nationalities along with the development of their native languages.

The total number of bilingual persons rose between 1970 and 1978. The 1979 census recorded 73.7 million people, or 28.1 percent of the population, who were fluent in a second language of the USSR in addition to their native language (52.1 million, or 21.5 percent, in 1970), including 61.3 million, or 23.4 percent, fluent in Russian (41.9 million, or 17.3 percent, in 1970). If we count those who are less than fluent in the Russian language, the number of bilingual persons rises considerably. This is attested to by the data of various ethnographic studies. For example, the data of an ethnosociological study conducted by the Ethnography Institute of the USSR Academy of Sciences in Moldavia in 1971 indicated that if all degrees of fluency in a second language were to be taken into account, even a poor

knowledge of this language, the proportional number of urban Moldavians who could converse in Russian would be 95 percent; 29 percent of them think in Russian, 37 percent think in Moldavian but can converse freely in Russian, 22 percent speak Russian with some difficulty and 7 percent have great difficulty (according to 1970 census data, 62.5 percent of the urban Moldavians had mastered the Russian language). The study also showed the wider mastery of Russian (to any degree of proficiency) among other nationalities living in the republic, as well as the mastery of the Moldavian language among Russians.<sup>3</sup>

The number of persons mastering the Russian language rose noticeably between censuses. In the 1979 census 153.5 million people called it their native language (141.8 million in 1970), including 137.2 million Russians and 16.3 million non-Russians. Besides this, 61.3 million<sup>4</sup> called Russian their second language and reported that they could converse freely in it. Therefore, the Russian language was cited as the native or second language by 214.8 million people during the census, or by 82 percent of the total population, including 77.4 million people of non-Russian extraction, or 62 percent of this population. The Russian language, which was voluntarily chosen by the peoples of the USSR as the common language of inter-ethnic communication and cooperation, has become an important factor in the convergence and unification of Soviet nationalities and ethnic groups.

It is also significant that Russians who live among the natives of a republic master their national language: During the census, 215,000 Russians called the languages of other nationalities their native language--Ukrainian, Belorussian, Estonian, Lithuanian, Latvian, Moldavian and others.

In addition to Russian, other languages of the USSR were widely cited as a second language--Ukrainian, Belorussian, Uzbek, Azerbaijani, Tajiki, Moldavian, Latvian, Georgian, Armenian, Lithuanian, Tatar and others.

The culture and language of any ethnic community are always closely interrelated. The cultures of the socialist nationalities and ethnic groups in our country are converging as a result of their thorough development and mutual enrichment. The Soviet culture is multifaceted and has been enriched by the most progressive elements of the culture of all nationalities in our country. Its nucleus is the culture functioning in the Russian language and based on the culture of the Russian people and the national cultures of other Soviet peoples.

Census data on the second language of the peoples of the USSR testify that more children and adults are now bilingual. This has been influenced to a considerable extent by such factors as the academic process in schools and in higher and secondary specialized academic institutions and joint constructive labor in multinational labor collectives.

The 1979 census data on the ethnic and linguistic composition of the USSR population and the diverse characteristics of various nationalities--demographic, cultural and socioeconomic--clearly illustrate the development of the new social and international community of the Soviet people.

# FOOTNOTES

1. "Materialy XXVI s"yezda KPSS" [Materials of the 26th CPSU Congress], Moscow, Politizdat, 1981, p 56.
2. These and other matters connected with the development of ethnocultural processes in the USSR and their reflection in the material and spiritual culture and languages of the peoples of the USSR were discussed at the all-union conference on "Ethnocultural Processes in Today's World," held in Elista in May 1981 and organized by the Ethnography Institute of the USSR Academy of Sciences and the Kalmyk Scientific Research Institute of History, Philology and Economics of the Kalmyk ASSR Council of Ministers.
3. S. I. Bruk and M. N. Guboglo, "The Development and Interaction of Ethno-demographic and Ethnolinguistic Processes in Today's Soviet Society," ISTORIYA SSSR, 1974, No 4.
4. This includes 148,000 Russians who said that Russian was their second language (they named other languages as their native language).

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## Indicators of Socioeconomic Development

Moscow VESTNIK STATISTIKI in Russian No 5, May 82 pp 70-72

[Tables: "Basic Indicators of Economic and Social Development of the USSR"]

[Text] 1. Number of Union and Autonomous Republics and Territorial Administrative Units (at the beginning of the year)

<u>Category</u>	<u>1923</u>	<u>1941</u>	<u>1982</u>
Union republics	4*	16	15
Autonomous republics	13	20	20
Autonomous oblasts	16	9	8
Autonomous okrugs	--	10	10
Krays and oblasts	--	107	128
Provinces and oblasts with provincial authority	75	--	--
Okrugs	--	8	--
Districts	766	59	--
Rayons	--	4,007	3,199
Volosts	13,659	1,023	--
Rural soviets	--	70,034	41,677

\* The RSFSR, UkSSR, BSSR and ZSFSR [Transcaucasian Soviet Federated Socialist Republic]. The ZSFSR included the Azerbaijan, Armenian and Georgian Soviet Socialist Republics.

## 2. Population of Union Republics\*

<u>Republic</u>	<u>Year founded</u>	<u>Population, in thousands</u>				
		<u>In year founded</u>	<u>1922</u>	<u>1940</u>	<u>1965</u>	<u>1982</u>
USSR	1922	136,100	136,100	194,077	229,628	268,825
RSFSR	1917	91,000	87,755	110,098	126,309	139,998
Ukrainian SSR	1917	27,500	26,230	41,340	45,133	50,310
Belorussian SSR	1919	4,400	4,330	9,046	8,558	9,744
Uzbek SSR	1924	4,258	4,363	6,551	10,068	16,583
Kazakh SSR	1920	5,400	5,367	6,148	11,771	15,262
Georgian SSR	1921	2,411	2,436	3,612	4,450	5,105
Azerbaijan SSR	1920	1,952	1,863	3,274	4,509	6,297
Lithuanian SSR	1940	2,925		2,925	2,953	3,474
Moldavian SSR	1924	236	232	2,468	3,304	4,024
Latvian SSR	1940	1,886		1,886	2,254	2,551
Kirghiz SSR	1924	937	883	1,528	2,532	3,723
Tajik SSR	1924	991	956	1,525	2,469	4,119
Armenian SSR	1920	720	782	1,320	2,170	3,167
Turkmen SSR	1924	1,007	903	1,302	1,863	2,972
Estonian SSR	1940	1,054		1,054	1,285	1,496

\* In this and following tables, data are cited for the end of the year for 1922 and for the beginning of the year for 1940, 1965 and 1982.

Table 3

## 3. Population of Autonomous Republics, Autonomous Oblasts and Autonomous Okrugs

<u>Territory</u>	<u>Year founded</u>	<u>Population, in thousands</u>			
		<u>In year founded</u>	<u>1940</u>	<u>1965</u>	<u>1982</u>
RSFSR					
Bashkir ASSR	1919	2,700	3,226	3,681	3,876
Buryat ASSR	1923	350	553	767	941
Dagestan ASSR	1921	710	1,024	1,274	1,697
Kabardino-Balkar ASSR	1921	210	359	516	695
Kalmyk ASSR	1920	112	184	241	305
Karelian ASSR	1920	245	478	704	753
Komi ASSR	1921	190	324	932	1,163
Mari ASSR	1920	465	588	668	713
Mordovian ASSR	1930	1,240	1,171	1,030	984
North Osetian ASSR	1924	280	406	513	606
Tatar ASSR	1920	2,700	2,942	3,061	3,464
Tuva ASSR	1944	95		208	271
Udmurt ASSR	1920	970	1,246	1,382	1,529
Chechen-Ingush ASSR	1922	416	743	971	1,185
Chuvash ASSR	1920	850	1,090	1,172	1,313
Yakutsk ASSR	1922	288	414	590	902

[Table continued on following page]



[Continuation of Table 3]

<u>Territory</u>	<u>Year founded</u>	<u>Population, in thousands</u>			
		<u>In year founded</u>	<u>1940</u>	<u>1965</u>	<u>1982</u>
Adyge Autonomous Oblast	1922	244	283	359	411
Gorno-Altay Autonomous Oblast	1922	90	165	169	175
Jewish Autonomous Oblast	1934	52	113	163	197
Karachayevo-Cherkess Autonomous Oblast	1922	161	257	320	375
Khakass Autonomous Oblast	1930	155	287	446	513
Aga Buryat Autonomous Okrug	1937	35	36	57	71
Komi-Permyak Autonomous Okrug	1925	171	173	232	167
Koryak Autonomous Okrug	1930	13	23	36	37
Nenetsk Autonomous Okrug	1929	15	46	39	51
Taymyr (Dolgano-Nenetsk) Autonomous Okrug	1930	9	18	35	50
Ust-Orda Buryat Autonomous Okrug	1937	128	136	157	129
Khanti-Mansisysk Autonomous Okrug	1930	50	95	190	699
Chukotsk Autonomous Okrug	1930	14	22	74	143
Evenki Autonomous Okrug	1930	6	10	11	17
Yamalo-Nenetsk Autonomous Okrug	1930	23	49	68	200
Uzbek SSR					
Kara-Kalpak ASSR	1925	321	488	611	983
Georgian SSR					
Abkhaz ASSR	1921	160	318	451	513
Adzhar ASSR	1921	122	204	284	367
South Osetian Autonomous Oblast	1922	58	109	102	98
Azerbaijan SSR					
Nakhichevan ASSR	1924	90	131	175	252
Nagorno-Karabakh Autonomous Oblast	1923	158	156	139	165
Tajik SSR					
Gorno-Badakhshan Autonomous Oblast	1925	56	73	89	137

#### 4. Class Composition of Population (%)

<u>Category</u>	<u>1924</u>	<u>1939</u>	<u>1959</u>	<u>1970</u>	<u>1982</u>
Total population (including unem- ployed family members)	100	100	100	100	100
Breakdown:					
Workers and employees	14.8	50.2	68.3	79.5	86.2
Just workers	10.4	33.7	50.2	57.4	60.5
Kolkhoz peasantry and members of craft cooperatives	1.3	47.2	31.4	20.5	13.8
Independent peasants and unorganized craftsmen	75.4	2.6	0.3	0.0	0.0
Merchants and rich peasants	8.5	--	--	--	--

There are two friendly classes in the USSR, the working class and the kolkhoz peasantry. The intelligentsia, people engaged in mental labor, represents a large part of the population. In 1926 there were less than 3 million people in the country who were engaged primarily in mental labor, but now there are around 42 million.

5. Educational Level of Population of Union Republics (number of persons with a higher and secondary--complete or partial--education per 1,000 inhabitants aged 10 and over)

<u>Republic</u>	<u>1939</u>	<u>1959</u>	<u>1970</u>	<u>1982</u>
USSR	108	361	483	670
RSFSR	109	361	489	676
Ukrainian SSR	120	373	494	664
Belorussian SSR	92	304	440	634
Uzbek SSR	55	354	458	670
Kazakh SSR	83	347	468	665
Georgian SSR	165	448	554	730
Azerbaijan SSR	113	400	471	700
Lithuanian SSR	81	232	382	600
Moldavian SSR	57	264	397	606
Latvian SSR	176	431	517	676
Kirghiz SSR	46	342	452	649
Tajik SSR	40	325	420	613
Armenian SSR	128	445	516	738
Turkmen SSR	65	387	475	655
Estonian SSR	161	386	506	661

6. Average Annual Number of Workers (Including Junior Service and Security Personnel) in Union Republics (in thousands)

<u>Republic</u>	<u>1922</u>	<u>1940</u>	<u>1965</u>	<u>1981</u>
USSR	4,610	23,860	56,389	79,900
RSFSR	3,262	15,878	34,941	46,160
Ukrainian SSR	856	4,610	9,830	14,300
Belorussian SSR	98	724	1,816	2,950
Uzbek SSR	66	495	1,438	3,000
Kazakh SSR	103	638	3,125	4,450
Georgian SSR	51	301	818	1,400
Azerbaijan SSR	97	325	714	1,270
Lithuanian SSR		115	690	1,050
Moldavian SSR	6	58	488	1,150
Latvian SSR		179	665	850
Kirghiz SSR	14	113	443	785
Tajik SSR	14	85	298	670
Armenian SSR	21	93	455	875
Turkmen SSR	22	120	257	500
Estonian SSR		126	411	490

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